13

THE CITY IN THE REGION

A Background Paper on
Regional Planning Issues

Cityplan '91

City of Toronto
Planning & Development
Department

Robert E. Millward
Commissioner

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Planning & Development
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Contents

	Executive Summary	*i*
1	**Background**	*1*
2	**Regional Planning Issues**	*3*
	Individual versus Societal Values ... *3* Cityplan '91: Values and Planning in Toronto ... *4*	
3	**Regional Development Pattern**	*9*
	The Regional Planning Experience ... *9*	
4	**Recent Initiatives in Regional Planning**	*13*
	The Greater Toronto Area "Urban Structure Concepts Study" ... *13* Options for a Greater Toronto Area Greenlands Strategy ... *24* Metro Toronto's Reaction to the "Urban Structure Concepts Study" ... *25*	
5	**Toronto's Perspective on the "Urban Structure Concepts Study"**	*29*
	The Environment ... *29* Population and Housing ... *32* Employment and Transportation ... *36*	
6	**City's Response to the Greenlands Options Study**	*43*
7	**Planning for the City and the Region**	*47*
8	**Conclusions**	*53*
9	**Recommendations**	*57*
10	**End Notes**	*61*
	Appendix	*63*

Figures, Maps and Tables

Figure

1	GTA Urban Structure Concepts: Typology	*14*
2	Population and Employment Implications for the Central Area	*34*

Map

1	GTA: Map of Area Municipality Boundaries	*iv*
2	Spread Concept	*17*
3	Central Concept	*19*
4	Nodal Concept	*20*
5	"Fingers" Concept	*26*

Table

1	Projection of Population and Employment for Three Urban Form Concepts	*15*
2	The 'Consumption' of Greenfield for Urban Use	*30*
3	Population Growth 1986-2021: Housing Implications for the City of Toronto	*33*

Executive Summary

Introduction

This report looks at three recent major studies of the Greater Toronto Area (GTA):

1. Greater Toronto Area Urban Structure Concepts Study, prepared by the IBI Group in association with a number of other sub-consultants on behalf of the Greater Toronto Coordinating Committee (Toronto: June, 1990).
2. Watershed, interim report of The Royal Commission On The Future of the Toronto Waterfront, The Honourable David Crombie, Commissioner (Toronto: August, 1990).
3. Options For A Greater Toronto Area Greenlands Strategy, prepared by Ron Kanter, MPP, for the Premier's Office and published by the Ministry of Natural Resources (Toronto, 1990).

The focus of this report is on the review of the "Urban Structure Concepts Study" which analyses three alternatives (Spread, Central and Nodal) for the future urban form of the GTA to the year 2021. The "Watershed" report takes an "ecosystem" approach that identifies planning principles for the GTA which emphasize the importance of environmental concerns to our quality of life, economic development, and the needs of future generations. The Greenlands Strategy report proposes a Greenlands System for the GTA based primarily on the natural resources of the Niagara Escarpment, the Oak Ridges Moraine Area, and the region's system of river valleys.

All three reports are examined from the perspective of the policies emerging from the current Cityplan '91 process to see where the planning objectives of the City appear to coincide or conflict with these other regional planning initiatives. The three options for urban form presented in the "Urban Structure Concepts Study" are also reviewed in the light of a recent study by the Metro Planning Department that evaluates these three options and develops two additional "hybrid" alternatives (referred to as the Fingers and the Reinvestment Centres options).

These three reports combine to provide a useful starting point for the debate among all levels of government regarding the future pattern of urban growth in the GTA. The important issue of regional planning is once again being put back on the public policy agenda after more than a decade of neglect.

General Comments on the "Urban Structure Concepts Study"

The "Urban Structure Concepts Study" assumes a given level of regional population and employment growth by the year 2021 that does not vary with the type of urban form (Spread, Central or Nodal). To assume that the same level of growth will occur regardless of how we plan to accommodate it seems unrealistic and limits the usefulness of the study in providing meaningful choices among alternative urban forms. On the other hand, it would necessarily be a somewhat speculative exercise to estimate how different urban forms and implementation measures might result in different levels of regional growth.

The three alternative urban structures are presented and evaluated primarily in terms of their different infrastructure requirements and costs as these relate to transportation, water, sewers, solid waste, human service, and environmental needs. A criticism of this is that it seems to approach the problem the wrong way around by starting with the alternative urban forms and their associated infrastructure requirements and seeing what social values they hold, rather than taking a set of values or principles and seeing where these lead in terms of implications for urban form and growth. To some extent, however, the two approaches might well lead to the same result in terms of identifying the preferred urban form for the region.

The "Urban Structure Concepts Study" takes demographic projections of population growth as being the prime driving force behind future regional expansion. However, it could be argued that the economic health and environmental quality of the region will largely determine the ability of the GTA to attract future growth, with the rate of job creation in the region being the prime driving force behind population growth and not the other way around. This question of determining what drives what, needs to be looked at more fully in a careful examination of the growth assumptions behind the "Urban Structure Concepts Study".

The "Urban Structure Concepts Study" gives little indication of how the alternative urban forms might actually be achieved: past experience suggests that planning at the regional scale in Ontario is something that is much easier said than done. The lack of detail on implementation strategies, planning mechanisms and funding sources places the "Urban Structure Concepts Study" largely in the realm of the abstract. Important questions related to the ease and risks of various implementation strategies were excluded from the terms of reference in a deliberate effort not to produce a planning study.

The "Urban Structure Concepts Study" focuses primarily on the forecast years of 2011 and 2021. However, in many ways, it is the next ten years that are of the most importance in setting the direction for the region's pattern of growth in the first two decades of the next century. There needs to be a better appreciation of how today's

planning decisions and commitments may have already prejudiced the outcome of the region's future urban form.

However, overall, the "Urban Structure Concepts Study" provides a useful starting point from which to debate the future of the GTA and raises many important planning issues. The fundamental issue raised by the report is what, if anything, should be done to limit the current regional trend towards continued urban sprawl.

Some General Principles For Planning in the GTA

The "Urban Structure Concepts Study" indirectly points to a number of principles that could form the basis for evaluating major, regional planning decisions in the GTA. This review identifies four such key principles which are recommended for the approval of City Council:

- environmental considerations should be given emphasis and primacy in planning the region;
- containing urban sprawl and promoting the intensification of urban land uses should be adopted as the alternative and preferred form of directing urban growth in the GTA;
- selected nodes of intensified urban development should be attractively designed to provide both a high quality and variety of distinctive urban environments for people to live and work in; and
- transit should be promoted throughout the region wherever reasonably possible, and the future role of the private automobile in the region should be re-evaluated.

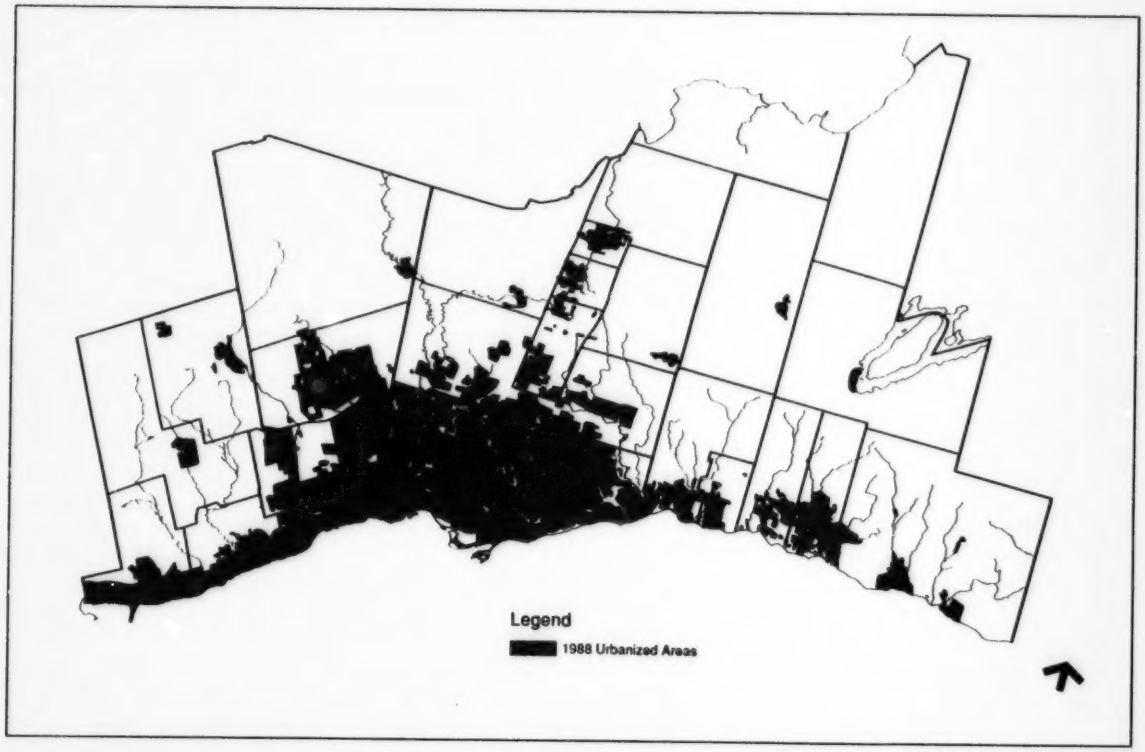
Some Specific Actions

To further implement the planning policies based on the principles outlined above, this review recommends that City Council request the Office of The Greater Toronto Area to include the following as next steps towards developing a plan for the GTA in co-operation with all local municipalities in the area:

- conduct an economic analysis of the region's growth potential and the implications for demographic change and alternative growth scenarios;
- consider establishing minimum densities for both residential and commercial development in suburban mixed use nodes, and attempt to develop a better balance between local housing and job opportunities in all nodes;
- examine, in more detail, the potential locations for mixed use nodes;
- endorse, in general, the findings of the Greenlands Strategy report;

- establish affordable housing targets for areas across the entire GTA on a fair share basis;
- evaluate the opportunities for the better integration of transit services in the GTA;
- examine the use of existing rail corridors for rapid transit purposes;
- assess the future role of the private automobile in the region; and
- conduct a comprehensive financial impact analysis of the various intensification options (Nodal, Central, Fingers, and Reinvestment Centres).

Map 1
GTA: Map of Area Municipality Boundaries



Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

1

Background

The City of Toronto is an integral part of two larger urban communities (Metro and the region). The formal political community, the Municipality of Metropolitan Toronto, consists of the City of Toronto plus five other local municipalities and is responsible for a variety of municipal activities as part of a two tier municipal structure. But even this larger municipality does not cover all of the contiguous urbanized area. Residential and employment activities have spilled over into the adjacent Regional Municipalities, and these areas now define one large integrated labour market. This larger area, referred to alternatively as the region, or the Greater Toronto Area (GTA) (see Map 1), reflects such important factors as commuting patterns and the housing market. It is the fastest-growing urban area in all of North America.

The capacity to provide transportation, sewer and water services, and the influence of physical infrastructure on urban form have always been issues associated with the region's growth. Attempts to address these issues have taken many forms over the years, from the City of Toronto's attempt to annex suburban areas in the early 1950s, to the creation of Metropolitan Toronto as a federation of area municipalities with a mandate to plan for the larger commuter shed, to creating regional governments modelled more or less on Metro Toronto, and to various attempts by the Province to actively intervene or create strategies to foster changes in the direction of growth. These Provincial initiatives have included the Toronto Centred Region Plan, The Parkway Belt Plan, The Niagara Escarpment Planning Commission, and The Central Ontario Lakeshore Urban Task Force.

The most recent planning initiatives in this area have resulted from the work of the Greater Toronto Co-ordinating Committee (GTCC) which was created by the Province in 1987. The GTCC is comprised of the Chief Executive Officers of Metropolitan Toronto, the regions of Halton, Peel, York and Durham, the City of Toronto and seven local municipalities abutting the Metro boundary. To provide staff to this committee, the Province created the Office of the Greater Toronto Area (OGTA) with a mandate to help governments in the area develop a consensus on what the

Greater Toronto Area should look like 30 years from now. In order to foster discussion toward such a consensus, the GTCC through the OGTA retained the planning consulting firm of IBI to co-ordinate a major study into alternative growth options for this large area. The consultants prepared the "Urban Structure Concepts Study" under very tight time constraints and limiting terms of reference. The final output of the study is represented by an overall "Summary" report and eight background papers which took less than five months to complete. The study was designed to promote, rather than settle, debate and, in this respect, it has provided a very useful entry point into the field of regional planning.

A companion study has culminated in a report entitled "Options for a Greater Toronto Area Greenlands Strategy". Municipalities in the Greater Toronto Area have been requested to respond specifically to the Greenlands Strategy by November 5, 1990. The GTCC would like to foster discussion of the alternative urban form concepts, and any hybrid concepts, at the local level before the end of the year.

Finally, the Royal Commission on the Future of the Toronto Waterfront has released its second interim report, "Watershed". By taking an "ecosystem" approach to planning, the Royal Commission report identifies principles for planning the Greater Toronto Area which emphasize the importance of environmental objectives for our quality of life, economic development, and intergenerational responsibility.

In reviewing these reports, this document, in addition to setting out a regional perspective for City planning policies emerging from the Cityplan '91 project, is designed to serve as a corporate response to both the "Urban Structure Concepts Study" and the "Greenlands Strategy" document. A parallel document has been prepared by the Committee of Heads of Departments dealing with the implications for financing, and local government organization, of various regional development scenarios.

To assist staff in preparing this document the Planning and Development Department organized a round-table discussion with experts in planning, transportation and development activities in the Toronto region. This session, held in March 1990 included staff from the City, Metro and OGTA planning departments, the IBI group, consultants to the GTCC, the TTC, the University of Toronto and York University. Appendix 1 provides a list of participants.

2

Regional Planning Issues

Individual versus Societal Values

The objective in planning for the future of a large urban region is to somehow optimize the settlement patterns from a number of policy perspectives. While external or exogenous pressures will be reflected to a degree in the pattern of growth, particularly in regard to the rate of growth and the characteristics of new migrants, the policy goals should be to reflect the aspirations of the region's citizens and maximize the benefits to society as a whole. Unfortunately, not only are there different views of what society's goals ought to be, but what is important to an individual may not be consistent with that same individual's view as to what is important for society as a whole.

Protecting and enhancing the natural environment and conserving limited resources are of primary importance to an increasingly large number of people. For many the preferred housing choice from a personal perspective is a large home in a greenfield setting. While it is generally given that sprawl, the urbanization of farmland, traffic congestion and pollution are undesirable, for many the ability to be able to drive to work with minimal time and congestion is also highly valued. Unfortunately, the form and density of development necessary to avoid sprawl is often inconsistent with the view of what is desirable for a residential environment from a personal viewpoint.

The question then becomes to what degree should individual wishes be subjected to society's interests, or, conversely, what are the social costs of meeting the individual preferences being sought. Should society try to encourage the use of public transit through road congestion, higher gasoline taxes, provision of new transit lines, higher parking rates, road pricing, etc. or should society provide the roads necessary to produce an acceptable level of congestion from the standpoint of the present road user? Should higher density be encouraged by higher property taxes, more permissive zoning, restrictions on new subdivisions etc., or should the market

wishes for detached low density housing be satisfied (with its concomitant requirement for more roads and less transit) and the consumption of farm land for urban purposes passively accepted?

As planners and governments have found time and again, regional p'anning is extremely difficult. There is generally a lack of public agreement over whether the government should impose a desired settlement pattern or plan to meet society's goals at the expense of individual goals. This, combined with general disagreement as to what those goals should be, let alone the shape the desired settlement pattern should take, makes implementing a regional plan difficult. Very often there is no specific issue touching people's daily lives to provide focus to this dichotomy of values across a large geographic area, and across a number of political boundaries.

Cityplan '91: Values and Planning in Toronto

The City has often taken a larger view on many growth and development issues. The 1976 Central Area Plan put forward specific limits on commercial development in the Central Core with the aim of directing commercial development out to suburban employment sub-centres. The underlying policy of deconcentration was seen, at the time, as contributing to a better quality of life for City residents as well as those working downtown, as well as distributing the perceived financial benefits of commercial assessment across Metro. Its aim was to contribute to the development of a Metro-wide rapid transit network that posed an alternative to the construction of highways into the downtown area.

How does the City fit into the GTA discussions that are just beginning?

> *"All of the roots of the global ecological problems lie within local activities – a significant proportion of which take place in cities, and are manifested in local effects."*[1]

There are three perspectives central to planning policy at the City of Toronto.

The first theme is centred on quality of life issues. If the quality of life for all residents of the GTA is improved through policies to preserve and protect the environment, the degree to which the quality of life for city residents is improved will depend on the type and form of development that is focused on the inner city through intensification initiatives. Consultations with the public throughout the Cityplan '91 process have seen environmental objectives repeatedly emphasized, as the quote above demonstrates. People who live and work in the City of Toronto are increasingly concerned about the quality of the air and water, traffic congestion and waste management.

The second precept of our present planning effort is a desire to more sensitively manage growth at the local level. Initiatives in this area will be to develop policies to direct development and population growth from a basis of social equity and quality of life principles espoused by the citizens' Task Force. (See Task Force Goals and Principles for a new Official Plan.) Such initiatives will focus on questions of the affordability of housing, ensuring a high standard of quality in built form, providing more open space within the City, and encouraging the use of pub. : forms of transportation for daily work trips. As with the present Official Plan, deconcentrating commercial employment to suburban centres accessible by rapid transit will represent an important policy initiative. In particular, the emerging policies of Cityplan '91 are consistent with the overall thrust of the Metro Planning Department towards promoting the "intensification" of future urban development. Intensification not only implies developing at higher densities to promote the most efficient use of infrastructure investments, but includes a policy of trying to develop a better balance between local housing and job opportunities.

The third derives from a concept of social equity that has resulted in a role for the City in dealing with the less advantaged in urban society. The City of Toronto has always welcomed social housing projects and has ensured, through good urban design, the mixing of income groups, and the provision of appropriate community services, that more than basic housing is provided - communities are developed. The City has always structured transportation policy from a pro-transit viewpoint. This has ensured equitable access to all city amenities and social and economic opportunities for all segments of the population. The concept of social equity attributes an imperative at the local level to consider the broader societal responsibilities behind our actions. The same philosophy should guide the City's contribution to the debate about regional form, especially with regards to environmental issues. Toronto City Council may find itself faced with the need to accommodate more growth than presently anticipated in order to play a role in addressing the environmental imperatives related to urban sprawl.

There are a number of interrelated goals emerging from these principles:

- protect and improve the environment;
- increase the housing supply, particularly affordable housing and build communities;
- minimize the growth in long distance commuting;
- increase employment opportunities, with specific emphasis on diversity and retaining manufacturing industry;
- control auto use; and
- improve urban design and increase park space.

To a large degree these goals are compatible with one another and with environmental objectives for city planning and can be compatible with regional planning objectives. For example, minimizing long distance commuting into the City, while maintaining, and even increasing, employment opportunities can be achieved by increasing the supply of housing in the City, particularly downtown. (Furthermore, the production of housing itself is a goal.) Improved transit service and limited road improvements will also reduce auto use. These in turn benefit from higher densities, residential and employment, at both the origin and destination ends of the commuting trip.

A preferred scenario of how the City of Toronto could evolve over the next ten to twenty years is emerging from other Cityplan '91 research. While there has been substantial commercial development over the past few years, this is not expected to continue. The long run average absorption rate of office space in the Central Area over the past 15 years has been about 150 000 square metres per year; over the past five years it has averaged more than 207 000 square metres. We anticipate that as a result of market forces and proposed planning policies over the next 10 years this annual growth rate will decline to an average between 100 000 and 130 000 square metres per year. Projections of employment growth for 2001 prepared by Metro show that office employment could grow by just over 51,000 workers by that time. At prevailing rates of office occupancy per worker (25 square metres), this would translate into the need, on average, for about 128 000 square metres of additional occupied office floor space each year.

At the same time, the proportion of the region's office space that is concentrated in the Central Area has steadily declined: from 66 percent in 1976 to 48 percent in 1988. If this trend continues, as it surely will based on the projections of average annual absorption rates described above, a great proportion of the region's office employment will be located closer to people's residences.

With the growth in daily work trips focused on the centre of the city, however, we must be concerned with how people get to and from work. Minimizing commuting into the City, while maintaining, and even increasing, employment opportunities here, can be achieved by increasing the supply of housing, particularly in the downtown area. While it has been generally accepted that more downtown residents would, to some degree, reduce peak period commuting, the exact relationship had not, until recently, been calculated. Recent research has estimated that, on average, every new Central Area dwelling unit will reduce inbound peak period travel by 1.2 trips.[2] This factor has been largely substantiated by the results of a survey of Central Area residents conducted for the Cityplan '91 project[3] and is now an accepted parameter in formulating the City's intensification policies.

This relationship helps to estimate the trade-offs between providing more housing, or having more centrally oriented transit improvements. For example, if 1000 housing units were built downtown, total inbound trips could be reduced by somewhere around 1200 trips in the morning peak period. Granted, if 1200 additional workers lived within the Central Area they would still have to travel to work, but the relatively short trip opens up such options as walking, cycling, local surface transit or adjusting work hours to be more flexible. Environmental protection and enhancement will benefit from constructing housing not just downtown but anywhere with good local transit services.

The relationship described above illustrates that local land use plans based on the intensification principle can contribute in a significant way to the development of a preferred urban form for the region. The use of automobiles, and the resulting impacts on energy consumption, congestion, safety, and air pollution, can only be addressed successfully by dealing with the entire metropolis (the commuter shed). Environmental performance standards for new development can more specifically ensure that environmental objectives are addressed on a day-to-day basis.

Choosing a preferred regional development concept should involve assuming a degree of responsibility for what benefits the inhabitants of the entire region, now and in the future. The plans of each local municipality must fit into, and work co-operatively to achieve, an overall desired pattern of development for the entire region. Toronto's new Official Plan will include such initiatives which are premised on the impact of local actions on global (regional) issues. The Province could provide leadership by proposing a number of principles and parameters for the region to avoid sprawl, incorporating some of the techniques described in this report, while requiring that each municipality demonstrate through its Official Plan how these principles and parameters could be achieved. The mechanism for implementing this could be similar to the approach taken with the provincial policy statement on housing: the Province defines the policy objectives while each municipality is required to show how it will be implemented.

3

Regional Development Pattern

The Regional Planning Experience

An excellent review of planning in the Toronto region is contained in a paper by Frances Frisken of York University: "Planning and Servicing the Greater Toronto Area: The Interplay of Provincial and Municipal Interests". In this paper, Professor Frisken outlines, among other things, the activities related to the Toronto Centred Region (TCR) concept of the early 1970s and the collapse of efforts to implement any preferred concept. The TCR proposal was adopted as government policy in 1971. The planning area extended north to Barrie and west to Guelph and Hamilton and the development concept for the area was designed to overcome several perceived problems. These included imbalanced development growth in the Province (more in the TCR and southwestern Ontario than in the rest of the Province); imbalanced growth within the TCR (more to the west than the east); loss of recreational and agricultural areas within commuting distance of Toronto; and pressures on providing urban services, particularly new trunk services to a scattered population.

The TCR concepts designed to deal with the problems included the following:

- divide the region into three zones; an urbanized zone along the shore of Lake Ontario (Zone 1); an intermediate zone within easy commuting distance of the first zone (Zone 2); and a peripheral zone outside of the commuter shed but still within Toronto's sphere of influence (Zone 3);
- growth would be discouraged in Zone 2 (except for selected communities on the north-south corridor) to preserve agricultural and recreational land;
- Zone 1 to be divided into two tiers of communities separated by a major east-west "parkway belt" providing open space and inter-urban transportation and other trunk services; and
- development would be stimulated to the east and north-east of Metro Toronto.

These concepts were never embodied in an officially adopted plan except for the Parkway Belt and Niagara Escarpment Plans. While the Provincial Government had persuaded the Federal Government to choose a site to the east of Metro Toronto for a new airport, it announced in 1975 that it would not finance roads or other services to the site. On the other hand, the Ontario Water Resources Commission (OWRC) signed an agreement (1968) with the municipalities to the west of Metro to provide for extensive development. As the land to be serviced was owned by large development companies, many new proposals either had just been approved or were being processed when the TCR concepts appeared in 1970. Later, when the OWRC had been absorbed by the Ministry of the Environment, agreements were signed with the Regions of York and Durham for the extension of trunk services, which led in the late 1970s to the spread of development in the areas north of Toronto which had been designated in the TCR proposals for agricultural or recreational purposes.

The development of the GO Transit System from 1967 on, further undermined the concepts of the TCR proposals, as this system encouraged an even greater concentration of employment in Metro Toronto while commuting became possible over ever longer distances. Furthermore, a perceived housing problem in the early 1970s led to the conclusion that a shortage of serviced land and high servicing and development standards were leading to high housing costs. Such a conclusion made it very difficult for the Province to restrict and control new development in outlying areas.

A policy of restricting growth did not sit well with the municipalities being restricted either. York Region, for example, was restricted by TCR planners to an urban population of about 250,000. Because of the high per unit cost of providing sewer facilities to a small population, York Region wanted an allocation of 750,000 persons. In the end, a compromise of 500,000 was agreed to. On the other hand, local interests in Durham Region were opposed to the "go east" policy and its impacts on the existing rural character, and therefore opposed the new federal airport.

From this understanding of the dynamics associated with the TCR exercise, Professor Frisken concludes that there still exist several obstacles to effective regional planning today. These include:

- lack of agreement among the five regional governments concerning growth (amount, location and density);
- opposition from outside of Metro to Metro Toronto attracting additional population which results in less population for the rest of the region, thereby strengthening Metro's case for a greater share of the provincial infrastructure funding;
- local municipal independence and assertiveness, often ignoring regional and provincial priorities;

- the socio-political dimension in the suburbs favouring low density, single family dwelling development in a greenfield setting;
- fragmentation and competition within the provincial bureaucracy;
- general antipathy to the Toronto Area and its rate of development in the rest of the province;
- and the Province having to deal with infinite demands within a finite budget.

Frisken found for the Toronto region, as Robert Wood found for the New York region 40 years ago,

> *"the government agencies with greatest potential for influencing the form of the Greater Toronto Area are those that provide the major public services (trunk sewer and water, highways and rail transit) that either facilitate suburban development or influence the use value of alternative locations within the area."*[4]

The Provincial government has these powers, but with 10 separate Ministries with interests in how the GTA develops, and over 80 separate provincial Acts related to municipal planning and administration, the Province has been largely ineffective in directing and regulating growth. Important here is the supremacy of local planning powers and local politics in shaping urban form. The present map of the built-up area of the GTA resembles all too closely the "feared" sprawl identified as the "Trends" concept in the Metro Toronto and Region Transportation Study (MTARTS) of the late 1960s. The pattern is also reinforced by the designation of areas for future urban development in various regional plans. One common element of some of these regional plans is the designation of somewhat higher density nodes of employment and housing at strategic locations (at the crossroads of highways and/or rapid transit lines). The model for such a concept of urban form was established by the Metropolitan Planning Department as early as 1965. Yet, despite the acceptance of this concept over the years, including its codification into Metroplan and the City's Official Plan, urban sprawl has continued unabated. The question is not, is this bad, that was determined a long time ago; instead the challenge for policy makers and politicians is how can we avert sprawl in the future, given our past failures.

4

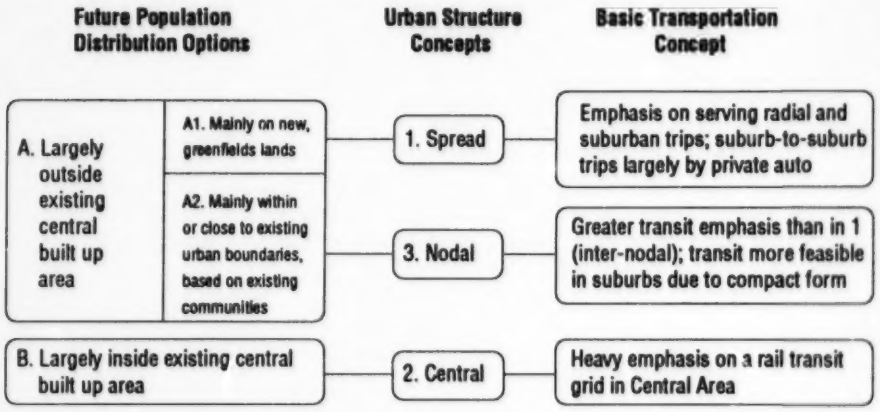
Recent Initiatives in Regional Planning

The Greater Toronto Area "Urban Structure Concepts Study"

As mentioned in the introductory remarks, the OGTA commissioned a study of alternative urban structures in order to foster discussion at the political and community level about the possible future shape and form of the Greater Toronto Area, The IBI Group co-ordinated the work of many consulting firms in putting together eight background reports. Three different concepts of future urban form are compared. The framework for this is illustrated in Figure 1.

The consultants and the OGTA emphasize that this is not a planning study. While no preference is recommended from among the three alternatives studied, planning principles and political objectives are the ultimate focus of discussion. There are, however, drawbacks to the terms of reference for this study. The reluctance to deal with specifics of planning policy required to achieve any of the objectives of the three scenarios, makes it very difficult to formulate a response from a local perspective. The decision to only test one forecast of future population growth is also a drawback and implies that urban growth is independent of urban form. Also, there is too much emphasis on the distribution of population and not enough attention given to the distribution of economic activity. Furthermore, the employment forecast is derived from a demographic model by assuming labour force participation rates and unemployment levels. No attempt has been made to model the regional economy or to consider any variation in economic growth scenarios. The importance of in-migration, and the degree to which a healthy economy is responsible for attracting these in-migrants, suggests that an economic forecast could have been pursued first, and the population effects derived from this. The prime reason for undertaking the study is said to be *"... to provide strategic information regarding the infrastructure requirements and costs to the year 2021 of three quite different urban structure concepts for the Greater Toronto Area."*

Figure 1
GTA Urban Structure Concepts: Typology


Future Population Distribution Options
Urban Structure Concepts
Basic Transportation Concept
A. Largely outside existing central built up area
A1. Mainly on new, greenfields lands
A2. Mainly within or close to existing urban boundaries, based on existing communities
1. Spread
3. Nodal
Emphasis on serving radial and suburban trips; suburb-to-suburb trips largely by private auto
Greater transit emphasis than in 1 (inter-nodal); transit more feasible in suburbs due to compact form
B. Largely inside existing central built up area
2. Central
Heavy emphasis on a rail transit grid in Central Area

Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

It is clear that the Greater Toronto Area could be better planned. The long recovery from the recession of 1981-82 has come to an end, and the time may be right to look at how cross-boundary problems of growth can be better co-ordinated. The quality of life generally throughout the GTA seems to have deteriorated through the 1980s even though it was quite a prosperous period for most of those living here. The downside has been dominated by skyrocketing house prices (just now starting to abate), the erosion of air and water quality and increasing difficulty in people's ability to have a fairly comfortable journey from home to work each day.

The Greater Toronto Area is comprised of 2,784 square miles, including Metropolitan Toronto and the Regional Municipalities of Halton, Peel, York and Durham. In 1986, the population of the GTA was 3.73 million people, with 2.08 million jobs. This is a region popularly conceived of as a congested, polluted, and expensive metropolis stretching from Oshawa to Hamilton. The extent of the GTA and the importance of sensitively planning for the future of this area is demonstrated by the fact that in 1986 only 21 percent of the total land area was urbanized. Even under the most land-consumptive scenarios of future growth, by 2021, 34 percent of the total land area would be urbanized (an increase of over 60 percent). This is not to suggest that the present development pattern (sprawl) can continue. Rather, the point is made to emphasize that there remain significant prospects for eroding greenspace and farmland, as well as prospects for stemming this tide.

For the purposes of testing alternative urban structure concepts, the population has been forecast to grow to 5.44 million by 2011 and 6.02 million by 2021; employment is predicted to rise under this scenario to 3.26 million by 2011 and 3.44 million by 2021. (See Table 1.) The time horizon for the urban concepts study is very long; long enough to incorporate a number of business cycles. But the looming recession and uncertainties regarding future immigration patterns reinforces the need to consider some alternative projections of overall population and employment for the GTA. While Table 1 illustrates the impact on the City and Central Area of each concept, it must be remembered that, the finer the level of geography, the more difficult it is to make allocations of population and employment this far into the future.

Background Report #2 of the "Urban Structure Concepts Study" examined a "minimal growth option" for the GTA. This option was premised on directing economic activity and consequent population growth to centres outside of the GTA such as Kitchener, Hamilton, and Peterborough. This would have the effect of significantly reducing the ultimate projected population levels for the GTA, although the impact was never quantified. In examining international experience at reducing growth rates, the consultants found little in the way of success to report and, in the end, concluded with a strong argument for assisting the GTA to maintain and build on its economic success and economies of scale. The authors felt that an attempt at

Table 1
Projection of Population and Employment For Three Urban Form Concepts

			2011						2021					
	1986		Spread		Central		Nodal		Spread		Central		Nodal	
Area	Pop'n	Emp.	Pop'n	Emp.	Pop'n	Emp.	Pop'n	Emp.	Pop'n	Emp.	Pop'n	Emp.	Pop'n	Emp.
Central Area	127.5	424.6	136.1	525.5	312	568.2	201.4	507.7	140.1	537.9	397.1	596.9	231.8	518.8
City of Toronto	612	605	658	718	920	856	733	742	677	737	1,053	914	780	762
Metro	2,193	1,349	2,358	1,686	3,310	2,046	2,626	1,748	2,428	1,724	3,800	2,183	2,800	1,794
Halton	271	119	497	244	362	203	464	240	593	271	378	211	545	266
Peel	592	304	1,060	593	794	465	1,050	600	1,198	631	828	479	1,190	651
York	351	170	851	456	517	293	703	383	1,007	505	540	304	804	417
Durham	326	137	673	280	455	253	595	288	794	309	475	263	681	312
GTA	3,733	2,079	5,438	3,259	5,438	3,259	5,438	3,259	6,020	3,440	6,020	3,440	6,020	3,440

Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1. The IBI Group, 1990.

achieving a geographically more dispersed economy ran the risk of losing the growth from the Ontario and Canadian economies altogether. They felt that the effectiveness of such policies had been limited, citing the experience of the 1970s and concluded that if such a policy were pursued, the production cost advantages in U.S. centres (particularly Upstate New York), coupled with the Free Trade Agreement, would more likely lead to a diversion of economic growth to the U.S. In view

of this, the minimal growth option was not pursued as a serious alternative in the study. The three principal options are described below.

Spread

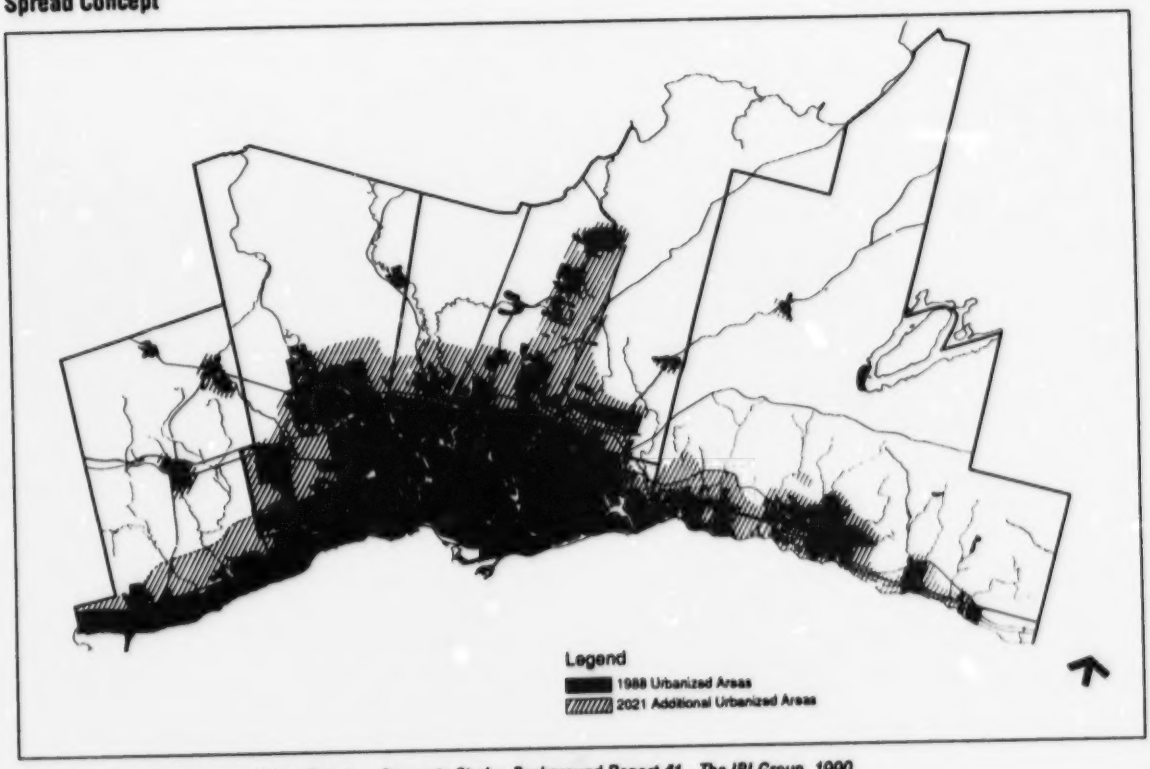
The first concept, known as Spread, is really a projection of current trends, although it does reflect, to a degree, recent initiatives on the part of Metro Toronto to intensify residential development. This concept anticipates that population growth will occur primarily as low density suburbs are constructed on the fringe of the presently urbanized area. Map 2 illustrates roughly the extent to which the urban "envelope" is expected to grow under this option. Very little population growth would occur inside Metro, with the Metro population to rise from a 1986 base of 2.2 million in 1986 to only a little over 2.4 million in the year 2021; employment in Metro would rise from 1.35 million to 1.72 million jobs.

Under this concept the City of Toronto's population would grow from 612,000 in 1986 to 677,000 in 2021 and employment would rise from 605,000 to 737,000. In the Central Area population would rise very slightly, given recent trends, from 127,500 in 1986 to 140,100 and employment would rise by about 100,000 jobs. At the current average household size of 2.0 persons per household in the Central Area, this growth would only require something over 6,300 housing units to be created in the Central Area over a 35-year period, the exact number depending on the extent to which population gains from new housing are off-set by any future declines in average household size. Already, more than 7,000 units have been built in the downtown area since 1986.

Obviously, by a "trend" scenario, the consultants and the OGTA are referring to larger scale implications of growth, greenfield land consumption and transportation patterns over the entire region. However, if, as appears the case, the Central Area is already ahead of the pace of residential development anticipated in the Spread concept, then it seems that sprawl may not be an inevitable trend, and policies to encourage further intensification might significantly change the future pattern of urban growth to a more compact form.

The imbalance between jobs and the employed labour force in Metro and in the four outlying regions would become worse under the Spread concept, and, therefore, longer commuting distances and times would result. This option consumes the greatest amount of presently non-urbanized land (a 60 percent increase over 1986 levels), requires the least involvement by the Provincial government in land allocation decisions and, potentially at least, provides the greatest supply of land for housing purposes. A large variety of locations is provided for new growth, but all are substantially the same; and are characterized by single family homes, isolated shopping centres, and reliance on the automobile for most work, shopping and recreational trips.

Map 2
Spread Concept



Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

The transportation system postulated here emphasizes radial service for a spread-out residential population but would include improved commuter rail, expansion of transit lines, possible "crosstown" or "circumferential" rapid transit and substantial improvements/extensions of both arterial roads and highways in the suburbs.

Central

A second alternative aims to intensify population within the already urbanized part of the GTA (Map 3). This option does not envision uniform redevelopment spread out evenly throughout the urbanized area. Rather the concept here is one where redevelopment is concentrated at specific sites (nodes) within the present urban envelope.

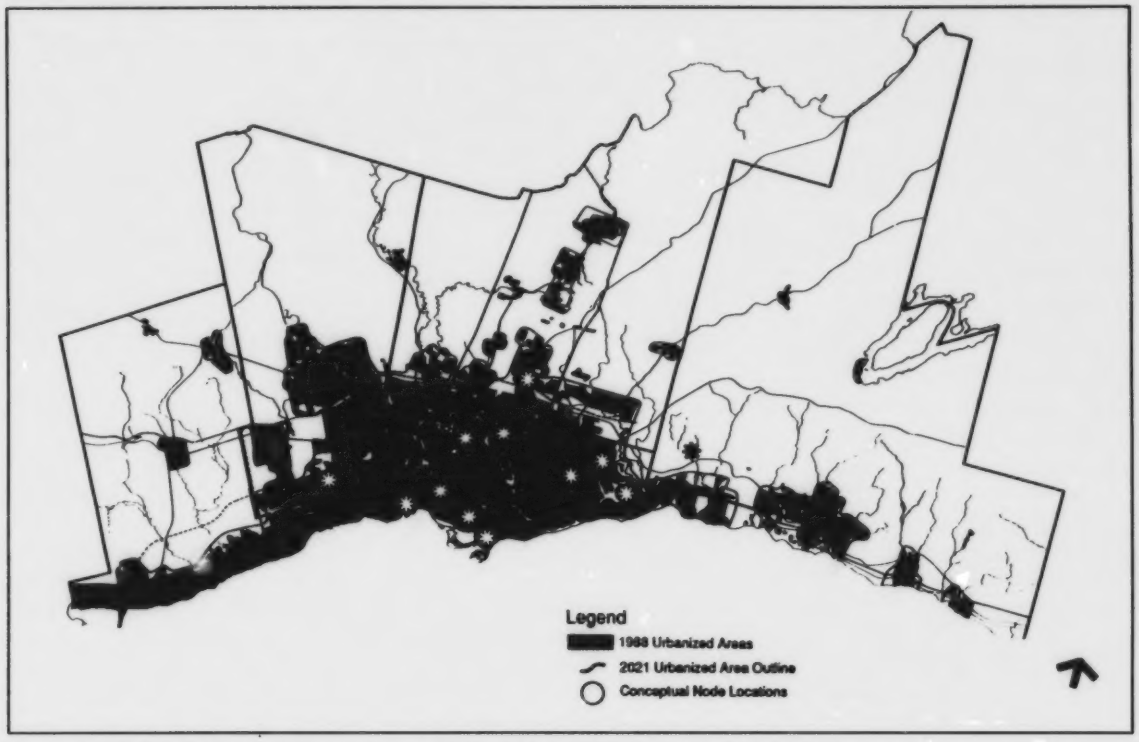
> *"...since it is a basic premise that the Central Concept would require a greatly increased emphasis on transit, it is therefore logical to select the more site specific form of this concept for analysis."*
>
> *"Population and employment intensification will tend to occur on land which is well served by existing or committed transit/commuter rail lines and which is currently not used to its potential."*[5]

After examining the vacant and redevelopable land potential within this envelope it was concluded that Metro could possibly accommodate a population in the range of 4.0 million people, without disturbing presently stable neighbourhoods. This potential would be realized if City of Toronto densities were replicated at all redevelopment sites. The study revised this estimate down to 3.8 million people for Metro by 2021 based on compatibility with current levels of existing and approved new development in the suburban regions.

The City of Toronto, under this concept is also expected to accommodate substantial housing and employment-based development. Population is anticipated to grow by 72 percent to over one million by 2021, and employment is expected to grow by over 50 percent to 914,000 jobs. Residential population in the Central Area is expected to more than triple under this concept to 397,100, while employment grows by 40 percent to 596,900. This is clearly a residential intensification option with the growth in employment only forecast to grow by 172,300 over 35 years while it has increased by almost 82,000 during the past six years.

This option consumes the least amount of new land in the region (a 23 percent increase over 1986), but requires extensive provincial involvement to restrict and redirect urban growth. The consultants maintain that intensification of development within the already urbanized parts of the GTA can be accomplished without disturbing the stability of existing residential neighbourhoods, but extensive conversion of presently non-residential land to residential uses would be required. (Curiously, this intensification option shows a substantial growth in City-based employment on industrially-zoned lands; rising from 156,000 to 171,000 or 10 percent.) The trend over time would be to greater use of the existing infrastructure and the development of an "urban" transit oriented lifestyle throughout the GTA. Indeed, these eventual densities would not be out of line if compared with metropolitan areas around the world: overall the density for the GTA would be 17 persons per acre (ppa) (averaged over all land) and 30 ppa within Metro, compared with Paris at 19 ppa, London at 23 ppa, Tokyo at 42 ppa and Hong Kong at 117 ppa. However, as was pointed out during our regional panel discussion with experts, Toronto does not have the hundreds of years of historical dense development in its core that these cities do. Nor do residents of the GTA seem amenable to such densities.

Map 3
Central Concept



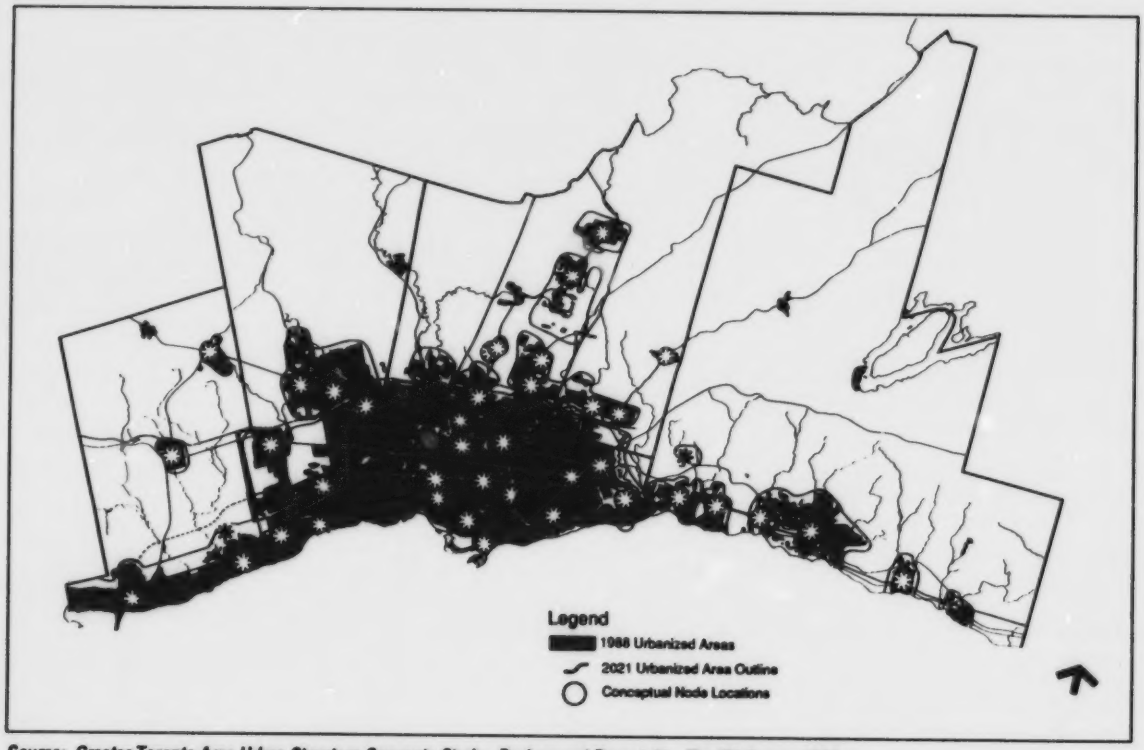
Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

The transportation system envisioned here has a major emphasis on an improved grid of rapid transit and commuter rail within the existing urban envelope with a strong emphasis on crosstown and circumferential lines as well as improved radial lines but with less emphasis on extending radially beyond the current envelope and reduced emphasis on road network improvement/expansions.

Nodal

The Nodal alternative is somewhere in between the two options described above. Substantial growth occurs outside of the presently urbanized area but not as much as in the Spread concept. Furthermore, the growth that does occur can be directed

Map 4
Nodal Concept



Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

to a number of points of concentration which can be linked together, primarily by existing rail lines used for passenger purposes (Map 4). Local transit to the node would provide transit opportunities for workers in the area destined to either "their" node for employment purposes or to use the inter-regional transit system to work in another node. This option recognizes that not all workers will live and work in the same nodal community because of job changes, more than one wage-earner per family, nodal specializations and the desire for a range of community types.

Within Metro the population is projected to reach 2.8 million by 2021 and employment would be almost 1.8 million. The City's population is expected to grow to 780,000 and employment to 762,000. The Central Area of the City is designated as a node and is forecast to accommodate almost two-thirds of the City's population

increase, growing to 231,800 under this concept. Central Area employment is expected to increase to 518,800, an increase of only 94,200 jobs. The annual rate of growth in downtown employment therefore is estimated to be only 20 percent of the annual rate experienced since the recession of 1981-82.

Under the Nodal concept there would be longer commuting trips, on average, than in the Central option but not as much of an increase as would result from the Spread option. Also, use of public transit would likely be considerably higher in the Nodal and Central options. Directing growth to nodes with densities higher than those prevailing in suburban areas would lead to reduced land consumption for urban uses over current trends (39 percent growth over 1986), but more land would be required than under the Central option. It probably represents a middle ground, as well, in terms of the need for Provincial intervention in development management. The Nodal option offers the greatest range of housing types and urban neighbourhoods, with many alternatives to downtown living, but with each having walk-to-shop, and transit-to-work opportunities.

The transportation picture under this concept would be similar to that envisioned under the Spread option but would have a greater emphasis on transit in terms of the capacity and service level provided, and possibly greater emphasis on crosstown/circumferential rapid transit or commuter rail (direct connections among nodes).

Summary

While the "Urban Structures Concept Study" does not explicitly identify a preferred urban form, the conclusions of the report clearly lean away from the Spread option in favour of the Nodal and Central options. Some form of intensification appears to be the implied preference.

- all three concepts are rated equally against the criteria of capital cost, running between $74 and $79 billion (1990 dollars) over the 31 year time horizon – differences are insignificant given the range of uncertainty attached to the cost estimates;
- all three concepts are essentially equal in terms of the costs of providing trunk water and sewer systems and solid waste management;
- both the Central and Nodal options can be regarded as supporting the principle of intensification;
- transportation is seen as being optimized under the Central option due to shorter trips, greater transit use and generally lower transportation effort; the Nodal option is a close second;
- the Central option has the lowest impact on agricultural and forest products and mineral resources and the lowest cost push impact on land development costs, but it could generate higher risks of a land supply/demand imbalance;

- while the Central option would consume significantly less farmland, the Nodal option is rated superior in terms of having less negative impacts on existing communities and in terms of providing a wider range of community sizes and more diversity in housing types;
- Central rates best under "greening/environment" criteria, followed closely by the Nodal concept;
- both the Nodal and Central options have high ratings vis a vis human services; and
- the Nodal concept rates highest in terms of minimizing external impacts of growth; it will create less pressure for the GTA urban envelope to overspill into communities outside of the GTA boundaries.

Given that all the concepts were required to assume the same overall levels of population and employment growth, it is perhaps not surprising that the infrastructure costs are roughly the same for each alternative urban form. The Central option scores well on a number of the evaluation criteria, but its implementation would seem to require considerable government intervention at the Provincial level and, by virtue of being the most intensified development option, would place the greatest stress on existing communities to absorb future regional growth. On the other hand, the Spread option, which is portrayed in part as the "trends scenario", is the easiest to implement but the most difficult to justify or defend on planning grounds. The Nodal option appears to represent the more feasible middle-ground.

The concept of nodal concentrations of population and jobs has been around since the Metropolitan Toronto draft official plan of 1965; the concept is enshrined in a number of regional plans. Yet, the actual result on the ground has been ever-increasing sprawl, and the desired levels of intensification have never been achieved. It is evident that a contributing factor to the slow progress toward nodal development within Metro has been the relative weakness of implementing land use measures. Disappointingly, the terms of reference did not permit the planning implications of the three options to be evaluated. Consequently, the "Urban Structure Concepts Study" was unable to provide a sense of what implementation measures and consultation process the GTCC should be considering to achieve any preferred urban form.

It is difficult to respond to something like the Nodal concept as described in the "Urban Structure Concepts Study" because there is a serious lack of detail regarding the location, form and function of the nodes. It is not clear exactly where these nodes may be located, although it is clear that some will involve the redevelopment of older industrial lands within Metro. Map 4 represents these nodes in a conceptual way only. The indication that the Port could be a node of residential intensification, even if it is only a conceptual representation, is premature from a City perspective given that no environmental audit has been carried out. It is the policy of the City to preserve industrial uses in the Port Industrial Area at this time.

A primary concern of the study seems to be to attempt to limit the sprawl of urban uses throughout the remaining farmland and open space within the GTA. Achieving this objective depends largely on the number of nodes designated and where they are located. More importantly, achieving this objective depends on instituting some fairly specific plans, policies and regulations to preserve the greenspace we have.

Although the "Urban Structure Concepts Study" provides a useful first step, further information is required before the future planning direction of the region can be firmly set and, particularly, alternative, long-term population and employment forecasts for the GTA need to be studied. Also, the dynamics of how the region is expected to achieve some preferred urban structure by the year 2021 needs to be analyzed. The important question of how different implementation strategies might affect both the form and rate of regional growth needs to be addressed in subsequent planning work. These issues of process, which the "Urban Structure Concepts Study" was required to avoid in this initial stage of the regional planning debate, will become of central importance as this debate shifts from the conceptual to the practical.

One step has been taken in the direction of planning process with the release of a report on a "Greenlands Strategy for the Greater Toronto Area", although ultimately it is the degree to which these policy directions are implemented that will determine if this seed bears fruit. In fact, to a large degree, the pattern of urban growth over the next 10 years at least is already predetermined by patterns of land ownership and physical infrastructure extension schedules on the urban fringe. Indeed, it would have been a very useful and revealing exercise to map the ownership pattern of greenfield lands on the outskirts of the present built up urban area to give a sense of what is already effectively committed to development.

The "Urban Structure Concepts Study" also omits discussion of the financing implications of the various growth options. Obviously, financial considerations are an important element of any implementation strategy and it is not enough to simply know the infrastructure costs of the three land use options. While it is understood that the "Urban Structure Concepts Study" deliberately avoided implementation or process issues, it is nevertheless problematic for municipalities to take definitive positions on regional growth when information on such critical matters as financing is not available. Questions of who pays for various infrastructure requirements, what the actual costs are, and what the potential revenue and financing alternatives are, need to be addressed in considerable detail, before a final position can be taken by municipalities.

The City of Toronto has prepared a companion report to this one entitled, "An Overview of City of Toronto Municipal Financing and Inter-Governmental Issues," which raises these types of issues concerning the Urban structure Concepts Study.

That report recommends that a comprehensive financial impact analysis be undertaken of the various regional growth scenarios prior to a final position being taken by the City of Toronto.

Options for a Greater Toronto Area Greenlands Strategy

Within the Greater Toronto Area there are such environmentally significant features as the Niagara Escarpment, the Oak Ridges Moraine and the Lake Ontario shoreline. This area also contains numerous wetlands, river valleys and natural areas and extensive tracts of forest land, most of which is on privately owned land.

> *"While the vitality of the GTA is linked to its economic prosperity through growth, it is also linked to the type of environment that is provided for its people. To ensure that the GTA continues to be an attractive, livable area, a balance must be struck between its built environment and its natural environment."*[6]

With this in mind, the Provincial Government established a study team to:

- define a greenlands system;
- identify areas to be included in a regional greenlands system;
- examine methods to secure greenlands; and
- examine possible alternative institutional arrangements to help implement the strategy.

The study determined that there was an urgent need to act now to focus future development within the already built up parts of the GTA. It also determined a need for an ecologically based greenlands management and land stewardship strategy. Among the recommendations emerging from this study are:

- that appropriate ministries in the Provincial government prepare guidelines addressing urban drainage/storm water management, water conservation, and how existing tools under the Planning Act can appropriately address greenlands to help guide planning and development;
- that the Province declare a general expression of provincial interest for the Oak Ridges Moraine Area under section (2) of the Planning Act; this would provide the time required to conduct a comprehensive land use planning study of the area, and in the interim the Province would review all proposed official plan amendments and rezoning applications within the Moraine Area; and
- that the Province prepare a Greater Toronto Area Greenlands policy statement pursuant to section (3) of the Planning Act; this would limit uses to those that would not reduce the attributes of the greenlands, ensuring that the valleys and watercourses be left in as natural a state as possible.

The interest in controlling development in the area of the Oak Ridges Moraine reflects a different provincial interest from that of the Toronto Centred Region Plan. While the TCR plan tried to stimulate growth to the east of Metro, controls on the moraine will have the effect of directing growth to the west. Most important, as a tie into the "Urban Structure Concepts Study", the Provincial policy statement would stress the need for more intensive and clustered forms of urban development throughout the GTA as a means of maximizing the lands available for greenlands uses.

Metro Toronto's Reaction to the "Urban Structure Concepts Study"

Discussions regarding the future urban form of the Greater Toronto Area have led to some new thinking at Metro regarding the impact that the Metro Centres and housing intensification policies could have on the larger region. Officials at Metro are in the process of drafting comments on the "Urban Structure Concepts Study", and may introduce two new hybrid concepts to the debate in addition to the three concepts discussed above.

These hybrid concepts which have tentatively been discussed with staff of the City Planning and Development Department can be referred to as "Fingers", which combine elements of both the Spread and Nodal concepts, and "Reinvestment Centres" which combine features of both the Central and Nodal concepts. These two additional concepts represent further options that can be developed from the principle of intensification, with the "Reinvestment Centres" strategy reflecting the stronger commitment to this principle.

Fingers

This is primarily a variation on the Spread scenario. As Map 5 shows, most new population growth would take place outside of Metro; Metro's population would grow to close to 2.5 million. Suburban growth of 1.2 million would force the outward expansion of the present urban envelope as in the Spread option, but with development concentrated within "fingers" of urbanization stretching out along major highway and rapid transit corridors. Map 5 shows how this could take place in a conceptual way, with such fingers stretching east and west along the Lakeshore corridor, a northern Yonge Street finger, a Milton finger and a Seaton finger.

If development were limited to these fingers they would eventually stretch out beyond the current GTA boundary. Employment would still be concentrated in Metro; these fingers would probably be primarily residential development at higher densities (about 16 persons per acre). Even if some employment growth were concentrated within these corridors, they could never compete with the concentrations within Metro. This would lead to an increase in longer distance commuting,

Map 5
"Fingers" Concept

Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

and these trips would be funnelled into the corridors, increasing congestion and under-utilizing the overall transportation network.

Land consumption for urban purposes would be less than under the Spread concept (about 300 additional square kilometres at 16 persons per acre) and the wedges between the Fingers would be highly accessible for recreation and open space purposes.

Major drawbacks to this concept centre on the natural tendency to develop the wedges of non-urban land between the fingers. A very high degree of provincial involvement would be required to both extend trunk services in such an unusual pattern, and in protecting the interstitial wedges from urban encroachment. This

option really is just a variation in timing of the Spread concept. When one looks at Maps 1 and 3, it is clear that our tendency to sprawl takes place first in a finger-like pattern, with the areas in between developing later. While the idea of promoting higher densities along the fingers is seen as drawing off the added potential to fill the wedges, with the assumption that we are dealing with a finite level of growth over time, such densities would have to be so high as to cause significant adverse community reaction within the existing urban areas adjacent to them.

Reinvestment Centres

Again a variation on a theme, Metro staff have differentiated two scenarios within the Nodal pattern of potential development. The Nodal concept described earlier is referred to by Metro as Deconcentrated Centres. If the nodes are to be deconcentrated to a great extent, the Metro planners argue that there are potential problems, as with the Fingers option, with respect to traditional patterns of trunk service extension and with pressure being placed on local governments to develop the inter-nodal open space, particularly if major transit lines and highways are linking them. The Reinvestment Centre concept combines elements of both the Central concept and the Nodal concept. It is designed to provide a more balanced density pattern than the Central option and to create higher densities outside Metro than under either the Central or Nodal options. Under the Reinvestment Centres scenario an ultimate population of 2.8 million could be accommodated within Metro through intensification and redevelopment. This is less than would occur under the Central concept but implies a faster rate of Metro population growth than the Nodal option. As Metro's preferred alternative, allocating the nodes largely within the current urban envelope offers a number of benefits.

The main thrust of policies that would implement such a scenario focus on delaying the development of new nodes until "reinvestment and rationalization" of the existing urban envelope takes place. As with the Fingers concept, the difference between this scenario and the Nodal concept may be simply one of time. Metro sees development naturally moving into new and expanded centres as envisaged by the Nodal scenario, but not until the density potential of the present urbanized area has been realized.

By concentrating a significant proportion of population growth within Metro, full advantage can be taken of the current transit network while planning for expanded inter-regional transit links among future nodes.

The Reinvestment Centres option is presently favoured by Metro planning staff. From a metropolitan perspective of sustainable development and quality of life, Metro Toronto is recommending that the objective for the next twenty years of urban development should be to accommodate growth within the existing urban

envelopes through new development and redevelopment at an overall urban density of 16 persons per acre across the GTA. In their interpretation, while the Nodal option offers the potential to achieve some environmental objectives as well as encourage a range of housing types, Metro feels that the overall urban density which results is barely sufficient to sustain minimal transit services throughout the entire urbanized area of the GTA. Concerns are also raised regarding the ability to direct major employers to such dispersed employment nodes as envisaged in the Nodal concept. Furthermore, the Nodal concept would still generate a significant demand on the consumption of greenfield land for urban purposes and would pose some concerns in terms of trunk service extension.

The Metro preference for concentrating nodes within the existing urban envelope would have a less adverse impact than would the Central concept. Directing the growth to nodes within, and adjacent to, Metro would have less impact on existing communities than would be the case under the Central option. At the same time, the environmental objective of reducing urban encroachment on farmland and open space would be achieved. It would also be conducive to establishing a first tier of inter-regional transit linkages around Metro; the overall gross density within Metro would be 18 persons per acre and would average 14 outside of Metro.

A major plank of the Metro argument for urban containment relates to environmental objectives. In this regard the Metro report draws on the findings of the report on a GTA Greenlands Strategy and largely supports the recommendations of that study.

5

Toronto's Perspective on the "Urban Structure Concepts Study"

This section of the report briefly evaluates the three urban structure options presented in the Provincial Study and the two additional hybrid options developed by the Metro Planning Department. This evaluation is presented under three broad headings:

- The Environment
- Population and Housing
- Employment and Transportation

As a general observation, it seems that the differences between the five urban structure options have their greatest impact on the suburban areas within and outside Metro. The City is already a relatively intensified area of development with a high transit dependency and the various urban structure options basically represent different levels of future intensification. In any case, through the Cityplan '91 process, we have determined that further intensification in the Central Area of the City and along Main Streets is both possible and desirable. In the suburban areas, the choices are between more radically different urban forms and lifestyles.

The Environment

That any sprawl scenario (including the status quo pattern of development) is "bad" for the environment is clear; but just which urban growth scenario should be regarded as "best" for the environment is less clear. In part this is because two of the other scenarios (i.e. Fingers, and Dispersed Centres or Nodal) appear to represent "sprawl delayed" rather than "sprawl averted" options, and in part it is because the remaining two (Central, and Reinvestment/Centres) include a spectrum of possibilities that are both unspecified, and may also, in certain cases but not all, be "bad" for the environment.

The terms of reference for the "Urban Structure Concepts Study" are premised on a 60 percent increase in the GTA population by 2021. Clearly all of this growth cannot be accommodated within the presently urbanized area. Even the most concentrated option recognizes the urbanization of areas presently designated for subdivision and the inability to accommodate all of the forecast growth within the present urbanized area. Table 2 shows the estimated land requirements for each of the five different scenarios of urban growth. All options will result in the development of greenfield land; such development will primarily be in the form of single family homes with two-car garages. Some townhouse and apartment development may also take place, but will not be as extensive. This type of development is most likely to take place initially on land already committed for urbanization, whether through local and regional plans or through land speculation. Given the present patterns of infrastructure commitments and land ownership, some continued sprawl is going to occur. If policies were adopted with the aim of directing a long range growth pattern to suit environmental objectives, and implementation tools put in place, they probably would not have an impact until after the year 2000 at the earliest.

Table 2
The 'Consumption' of Greenfield for Urban Use

Urban Structure Concept	Number of Hectares Required
Spread	91 000 ha
Central	36 000 ha
Nodal	59 000 ha
Fingers	30 000 ha
Reinvestment Centres	40 000 ha

Sources: *Greater Toronto Area Urban Structure Concepts Study: Background Report #1. The IBI Group, 1990. Metropolitan Toronto Planning Department, Policy Development Division, 1990.*

We have no argument with the basic premise, as correctly expressed by the Metro Planning Department, that urban sprawl consumes land better left for other purposes, generates more automobile traffic (and therefore more pollution and more energy consumption), requires lateral sewer extensions, and puts additional pressures on remnant natural areas. However, these problems are not necessarily eradicated in the Fingers or Dispersed Centres/Nodal scenarios.

The problems that are anticipated in the rural-urban fringe area under the Spread Scenario, may also be expected in the "wedges" between the fingers, or along the transport "ribbons" between the dispersed centres. Beyond the sprawl edge normally lies an uncertain area of rural-urban fringe in which the speculative land

values exceed agricultural land values. Farmers sell. Developers buy. The land enters a twilight of abandoned use and temporary replacement as moderate rent private recreational open space (e.g. golf courses, "dude ranches", etc.) before being developed for new urban growth. These pressures are just as likely to be experienced in the wedges and the ribbons as in concentric rings around traditional sprawl. Indeed the Metro Planning report seemingly recognizes this argument and makes reference to special protection against encroachment.

Unless new protection measures are introduced that effectively guarantee these lands against these development pressures, it is unlikely that spread will be resisted. As such, other than the time lag effect that the Fingers and the Dispersed Centres might reasonably be expected to create, both scenarios may be anticipated as ultimately adding to urban sprawl, and subtracting from the environment.

Given that the details of the Nodal concept are somewhat unclear, it is difficult to comment definitively on the relative environmental impacts of this option compared to the more intensified alternatives (Reinvestment Centres option and Central option). The number, size, density and design of the "centres" planned for the Nodal option are not known. Although, the Nodal option will, by definition, consume more land than the Reinvestment Centres and the Central options, its appeal is that it may prove to be the more achievable urban form, and it certainly represents an improvement, from an environmental perspective, on the trends scenario represented by the Spread option.

The two most intensified development options, Reinvestment Centres and Central, provide different ways of accommodating higher density development in the region. Central cannot be a uniform process across Metro. It will have nodes where it might be seen to occur, but established homeowners and even neighbourhoods are unlikely to convert to a more concentrated form without compulsory purchase, which is presumably not acceptable. Thus the Central concept, as with the Reinvestment Centres concept, is likely to result from intensification at nodes. The number of nodes envisaged (not specified in either scenario by either Metro or the Province) is key. The Reinvestment Centres option envisages relatively few large nodes spread across the entire GTA, whereas the Central option is based on a greater share of regional growth being accommodated in Metro where, presumably, more centres would be located. Each of these intensification options could be planned to provide more centres or fewer centres, and the choice between opting for a few large centres or many smaller ones will present both advantages and disadvantages from an environmental perspective. The few nodes scenario can perhaps be seen as environmentally undesirable on balance, whereas the many nodes scenario might be environmentally preferable on balance.

In a fully green urban environment high rise buildings are considered to be overly energy consumptive because of elevator use, the need to pump water to higher

elevations, and production and operating costs tend to be higher than for walk-up apartments.[7] Such structures are also considered to negatively impact on pedestrian comfort at street level. Height limited walk-ups largely avoid these concerns. Therefore, lower density coverages of the "many centres" option are preferable to the higher density coverages of the "few centres" option. Many nodes should also reduce the average length of trips to work (though not the total number) and are preferable from the standpoint of transportation produced pollution and energy consumption.

In a less utopian and perhaps more realistic urban environment, where people will still expect provision of such things as elevators in low rise walk-ups, the advantages of many over few centres are perhaps reduced. However, the benefits for pedestrian comfort, perception of quality of life, and transportation should still encourage development to occur in a many node scenario, and, again, the less intensive Nodal scenario may prove to be the more appealing and feasible option.

Confounding the problem, is the reality experienced elsewhere, where the common approach to resist sprawl as by promoting higher residential densities and discouraging car use can be seen to be failing. As pointed out in respect of the situation recognized in Montreal:

> *"long blessed with high residential densities and low car ownership, Montreal is presently undergoing the pangs of urban sprawl"*[8]

Clearly other factors are important. People's perception of the "good life" and their preferred quality of lifestyle seemingly encourage low density development and/or suburban sprawl. Standard planning processes to influence the pattern of growth must be supplemented by such recognition and the determination to make the environment of urban centres more appealing to greater numbers of people.

Population and Housing

As noted above, the anticipated population growth, to six million people, cannot be accommodated within the present urbanized area of Metropolitan Toronto and adjacent municipalities. The differences in land requirements between the Spread and Nodal concepts reflect the different ways in which people are housed. There would be almost as many people living in the four regions surrounding Metro under each of these two options, but the density of residential and non-industrial employment in the Nodal concept would be much higher. The Nodal option would be characterized by:

> *"...compact development in and around existing communities, carefully planned, integrated with existing development ... particularly in communities well served by commuter rail or transit."*[9]

The 30 year time horizon for the "Urban Structure Concepts Study" is very difficult to deal with at the local level; it is difficult to envisage how land use patterns will evolve over such a long period of time. The next 10 years will be most crucial to determining whether the trend scenario of sprawl can be changed. The Background Reports do not project data for ten year intervals, but they do show estimates for 2011. (See Table 1)

Table 3 takes the forecast change in population from 1986 to 2021 under each of the three GTA concepts for the Central Area and the rest of the City, and estimates the number of housing units needed under each scenario. For the Central Area an average household size of 2.0 persons per unit is used, and for rest of the City 2.2 persons per household is assumed. The Spread concept assumes a major reversal in housing market preference away from downtown Toronto. With only 6,300 units required to accommodate the estimated population change, the present situation is not even represented; there have been over 7,000 units built within the Central Area since 1986 already. The Central concept represents the other extreme, anticipating over 134,800 units to be built in the Central Area by 2021. Evaluating the long term potential for developing housing that City staff have undertaken has not revealed sufficient lands to accommodate this level of development.

Table 3
Population Growth 1986 - 2021: Housing Implications for the City of Toronto

	Spread		Central		Nodal	
	Pop'n	Units	Pop'n	Units	Pop'n	Units
Central Area *	12,600	6,300	269,600	134,800	104,300	52,150
Rest of City **	52,400	23,818	171,400	77,909	63,700	28,955

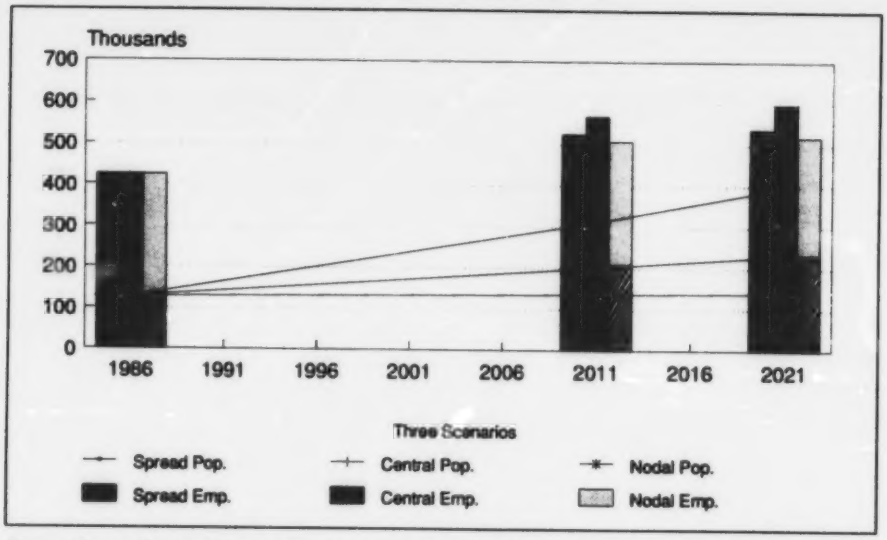
* assuming 2.0 persons per household
** assuming 2.2 persons per household

Sources: Greater Toronto Area Urban Structure Concepts Study: Background Report #1. The IBI Group, 1990.

These estimates of additional housing units should be viewed as minimums to accommodate the projected population growth. Housing would be required over and above these estimates to offset losses due to demolition and deconversion, as well as declining household size within the present stock. Figure 2 illustrates the estimated population and employment impacts each of the three urban concepts would have on the Central Area.

Throughout the rest of the City, the new housing requirements are not much different under the Nodal concept (28,955) than under the Spread concept (23,818). The Central concept suggests a requirement of 77,909 new housing units. Work is still

Figure 2
Population and Employment Implications for the Central Area



Source: Greater Toronto Area Urban Structure Concepts Study: Background Report #1 - The IBI Group, 1990

underway to prepare a Proposals Report for Cityplan '91 which examines the potential for residential intensification. At this time staff feel confident enough to suggest that the population and housing figures envisaged by the Nodal concept are possible within the Central Area. However, there may not be the potential to accommodate the growth anticipated for the rest of the City outside of the Central Area without disrupting existing communities or converting industrially zoned lands to residential uses. It does not seem unrealistic, though, for the City to plan for an eventual population of 725,000 by 2011.

Social housing objectives will be at the forefront of the new Official Plan for Toronto. When considering residential intensification, no matter which model is chosen, the ability to create housing opportunities that meet the physical and financial needs of low income households is important. Higher residential densities in nodes or centres across the GTA could help to promote the construction of social housing projects; maximum unit prices under senior government allocations often are insufficient given suburban densities and extensive lot levies. A report from the Special Metropolitan Toronto Housing Committee recognizes the necessity of addressing affordable housing needs at a regional level. Among the recommendations, which have been endorsed by Toronto City Council, is the call for a Metro/

Province meeting to discuss such questions as increasing social housing allocations to address the needs of low and moderate income households, the distribution of allocations to promote a "fair share" policy, to address housing needs at a GTA level, and to encourage other municipalities in the GTA to promote intensified development.

By 2021, the largest age group within Metro will be those over 55 years of age. In assessing the future housing needs of residents of the GTA, two age-related factors need to be considered: the changing housing preferences of an aging society and the affordability of housing options to those younger individuals and families moving to the GTA from elsewhere in Canada and overseas. The type of housing that has been dominating the new housing market and contributing further to sprawl, is an expensive form of housing attractive to one segment of the market – young families. It is not affordable or accessible to young singles, single parent families or the elderly. As the baby boom generation ages, this form of accommodation will not be desired to the same degree. Housing forms implicit in any trend scenario may not be marketable in 2021, regardless of environmental and transportation implications.

Mixing housing and employment opportunities in any intensification effort is important. The extent to which housing production can offset the need for costly transportation improvements (where there is a good "fit" between occupations and housing choices) has been clearly demonstrated[10] and is an important element of the Cityplan '91 Plan effort. Such a linkage between housing and employment opportunities should be central to any intensification option such as the Nodal, Central or Reinvestment Centres concepts. Initially, mixed use nodes would be more likely to be implemented within Metro and the adjacent built up communities given their present ties to transit systems. However, specific implementation measures will have to be considered; general policy statements will not suffice.

We are not suggesting that the Province become directly involved in establishing densities in local official plans. Rather, as mentioned previously, we are advocating a co-operative approach to resolving such land use issues in the GTA. For example, the Province could set general guidelines similar to the Provincial policy statement on housing. The Regional planning agencies could then work with local municipalities in identifying and establishing nodes, particularly in relation to transit service and trunk services. Once the locations of nodes are known, minimum density requirements could be put in place. These should be sufficiently high to encourage transit support but still conducive to the development of a supportive community with sensitive built form. The implementation of the land use controls necessary to achieve these objectives would properly remain the responsibility of the local municipalities but would be guided by overall targets agreed to with regional governments to meet the broader provincial guidelines.

Employment and Transportation

The Need For a Value System

The "Urban Structure Concepts Study" implies, by virtue of its terms of reference, that different patterns of infrastructure investment can produce different geographic distributions of future population and employment growth, and obviously the provision of transportation services is a key element. However, it is generally believed that the relationship between transportation and land use is not strictly one way and, to some extent, the pattern of employment and population growth will determine where new transportation services are provided. The "Urban Structure Concepts Study" report basically proposes three different ways of geographically arranging a fixed amount of projected population and employment growth and estimates the different infrastructure requirements of these three alternatives. Perhaps, not surprisingly, the transportation costs of the three alternative land use options are all quite similar in total, with the Spread option placing a greater emphasis on road investments, and the Nodal and Central options putting more weight on transit.

To choose between the three urban structure concepts requires some type of value system by which to evaluate them. A criticism of the "Urban Structure Concepts Study" is that it seems to approach the problem the wrong way around by starting with the alternative urban forms and seeing what values they hold, rather than taking a set of values or principles and seeing where these lead in terms of implications for urban form and growth. In the end, the two approaches might lead to identifying the same preferred urban structure but the value-driven approach provides a more direct approach. The value-driven approach would also allow different projections of population and employment growth to be considered. The "Urban Structure Concepts Study", on the other hand, leaves only the somewhat unrealistic choice of determining the spatial arrangement of a pre-determined level of future urban growth. The choice is unrealistic because urban form and urban growth are interdependent, and one cannot be considered separate from the other. Assuming that growth and form are independent might be a useful simplifying assumption to make in the early stages of launching the debate on the future of the region, but more information on alternative futures will eventually be required before the initial findings of the "Urban Structure Concepts Study" can be taken to the subsequent stages of plan formulation.

In an earlier report by Mr. Neal Irwin of the IBI Group (see the February, 1989 "IBI Forum" newsletter), a number of transportation planning principles were proposed for the GTA as follows:

1. land use patterns which assist transportation efficiency;
2. an increased role for public transportation;

3. better transportation management to make better use of what we have;
4. integrated transit planning across the region; and
5. an expanded road network.

The first four appear to represent a set of transportation planning principles that the City would endorse and support. Together they suggest intensifying urban development and adopting measures to restrain urban sprawl. The fifth planning principle regarding the expansion of the road network seems, however, to be somewhat inconsistent with the other principles. The roads dilemma also poses challenges for the "Urban Structures Concepts Study" and the Metro Planning Department's study, both of which display an ambivalent attitude toward the future role of the auto in the region. For example, the Metro Study considered auto-restraint measures and concluded:

> *"While in theory this policy choice (of restricting auto use) seems to have some appeal, it is impractical to those who live in the low density suburbs. The highway network within the GTA services the provincial transfer of goods and people as well as providing interregional transportation for the GTA. For the health of the provincial and regional economy, the highway system must be maintained."*[11]

Clearly, some road expansions will be required, particularly in newly developing areas. However, there needs to be a fuller examination of the policy levers available to increase the use of transit and minimize the need for new or expanded regional roads.

The auto has also been identified as the largest, single direct source of urban air pollution, largely as a result of carbon dioxide emissions. These high outputs of carbon dioxide contribute significantly to the overall problem of global warming. In response to this situation, the City of Toronto has targeted a 20 percent reduction in current (1988) levels of carbon dioxide emissions by the year 2005. Vehicle exhaust emissions also exacerbate the problems of acid rain and contribute to the development of toxic levels of ground-level ozone pollution. On the other hand, chlorofluorocarbons (CFCs) produced from vehicular air-conditioning units deplete the protective level of ozone in the upper atmosphere which exposes the earth's surface to higher levels of harmful ultra-violet radiation.

The Future Role of the Auto in the GTA

There needs to be a much harder look at the regional roads issue in terms of what a desirable and feasible expansion plan, if any, should be. The "Urban Structure Concepts Study" regards the Spread option as representing the status quo by maintaining the existing regional peak-period modal split of 26 percent of all trips by transit to the year 2021. The Central and Nodal options, by contrast, see this modal

split figure increasing to 35 percent and 29 percent respectively. However, the Spread option should not be regarded as a trends or do-nothing scenario, for it involves building all the major transit facilities outlined in the recent provincial $5 billion "Let's Move" transit plan plus other additional transit lines (such as introducing transit service on the CP North Toronto Sub freight line) for a total cost of $7.2 billion. Without this level of investment over the next 30 years, the regional transit modal split could fall below the current 26 percent figure. The higher use of transit associated with the Nodal (29 percent) and Central (35 percent) options is achieved by comparable transit investment figures of $11.6 billion and $14.4 billion respectively.

Under all three alternative urban structures, there remain huge increases in traffic to be absorbed on the roads. For example, the Spread option leads to an estimated 83 percent increase in the number of peak-hour automobile-kilometres over the 1986-2021 period. Even the Central option produces a comparable increase of 44 percent. These increases are also based on some quite conservative assumptions about future trip generation rates. The "Urban Structure Concepts Study" assumes that per capita and per worker trip rates would not change materially over the 1986-2021 period which is much different to the experience of the previous 25 years when trips were observed to increase at twice the rate of population growth. It could be that none of the urban structure alternatives provide an effective solution to the roads problem if the current rates of automobile ownership and use are left unchecked. In this situation, road congestion could impose limits on growth in certain parts of the region. The "Urban Structure Concepts Study" only looked at the needs for future road capacity in an abstract or conceptual way, calculating additional "lane capacities" that would be required in different parts of the region. It is unlikely, however, that these additional lanes could all be built and successfully fitted into the region's urbanized area.

Controlling the future use of the automobile is, however, a difficult problem to tackle and there are no easy solutions. The "Urban Structure Concepts Study" and Metro report seem to emphasize improved transit as providing the "carrot" to lure commuters out of cars. This alone may not be enough, and it may prove necessary to use the "stick" by restricting car use more directly. Certainly, if some of the larger environmental objectives are to be achieved for the region, then society's attitude towards the car will have to significantly change. However, there are limits as to how far and how soon tighter restrictions on auto use can be introduced, particularly in low density suburban areas where it is difficult and costly to provide an effective transit alternative.

Urban Sprawl and Some Key Questions

Urban sprawl is generally disliked by planners because it leads to the increased

consumption of land for urban purposes and, from a transportation perspective, increases society's dependency on the auto which results in:

- more pollution;
- higher energy costs;
- greater dependence on oil;
- more congestion, longer travel times and distances;
- more accidents; and
- the young, the old, the poor, and others unable to either drive or own an auto are increasingly disadvantaged as investment funds are increasingly diverted to roads from transit.

Yet, urban sprawl has been the chosen pattern of development of most suburban communities and, in particular, has provided the type of low density housing that many families prefer and still seek to acquire. Up until quite recently at least, a large section of society has been prepared to live with the negative consequences of urban sprawl in return for the benefits this pattern of development has brought them. However, with heightened concerns over environmental issues, and with the build-up of road congestion in suburban areas, attitudes towards continued urban sprawl appear to be changing. The pattern of insolvable "suburban gridlock" that has begun to develop around many US cities points toward the type of dysfunctionalities that could soon begin to afflict the GTA on a major scale. This is why it is important to address three fundamental and interrelated planning questions concerning the GTA:

1. How do we promote intensification?
2. How do we introduce transit in low density areas?
3. How do we control the growth in auto use?

These questions are not directly answered by the "Urban Structure Concepts Study", and are generally beyond the terms of reference of this study. However, the response to these questions will largely determine the answer to a fourth and more fundamental one, namely:

4. How much growth can the GTA successfully accommodate from a transportation planning perspective?

As noted earlier, the "Urban Structure Concepts Study" answers this final question by taking total future population and employment growth as a fixed and given amount, regardless of how the region proposes to accommodate it. A critical element of private choice and public policy is removed from the study at the outset. As noted above, more information on alternative futures for the region will be required before the initial findings of the "Urban Structure Concepts Study" can be taken to the subsequent stages of plan formulation and the identification of realistic regional transportation plans.

Comments On The Background Report On Transportation

When looking in detail at the transportation component of the "Urban Structure Concepts Study", there are a few salient points to note:

(a) The treatment of the existing rail freight network is unclear. All three urban structures (Spread, Central and Nodal) have rapid transit facilities on the existing CP North Toronto sub freight line. If the existing rail network could be used primarily for regional transit (as opposed to freight) services, then there appears to be the potential for a quite radically different regional transportation plan from any discussed in the report. The importance of this possible transportation option needs to be stressed more clearly: a whole new land use concept could be structured around the use of the existing rail corridors for regional and local rapid transit services. The rail corridor option may provide one of the more practical transportation planning hopes for the future.

(b) The projections for future changes in the modal split are based on changes in population and employment densities (with higher densities equating with greater transit use) and not directly on the level of transit services provided. Also, the feedback effects of road congestion on the use of transit are not included. These assumptions may under-estimate the abilities of the intensification options (Central and Nodal) to attract higher transit use and a greater degree of self-containment. For example, the "Urban Structure Concepts Study" assumes that only one third of work trips made in the larger centres associated with the Nodal option are internal and the other two-thirds commute in from outside. However, with good local transit and crowded highways, the proportion of internal and non-auto work trips might be higher.

(c) The social impacts of the Spread alternative should be given greater emphasis. As noted above, further sprawl means more investment in roads and less in transit and this works to the great disadvantage of a large segment of the population, namely the young, the old, the poor and others who cannot use a car. These people are harmed in two ways: transit services deteriorate and the urban form further increases the advantages of using a car. A heavily auto-oriented GTA can also produce a socially hostile environment for everyone living in the region.

(d) The report appears to focus only on rapid transit improvements. Given the regional scale of analysis and the emphasis on major infrastructure costs, this bias is understandable but the important role of other transit services, particularly the bus, should not be overlooked. The "Urban Structure Concepts Study" implicitly assumes increases in bus and other surface transit services commensurate with the expansion of rapid transit, but issues, such as the priority treatment of surface transit vehicles on the regional road system, are not addressed. Also, the impact of pricing measures on both the use of transit and

the auto are not looked at as possible means of influencing the modal split. Further, to make the expenditures on the capital costs of road and transit facilities over the 1986-2021 period comparable with past levels of spending, the costs presented in the report need to be appropriately discounted. The way the capital costs are presented over-states the level of required spending in comparison to past funding levels.

(e) The report makes little mention of the international airport district which is one of the region's most noted transportation trouble spots. Access to and from the airport itself by transit is limited, and the large employment centre developing around the airport is also poorly served by transit. Improved transit access between the airport area and the Downtown could be of considerable benefit to both the City and the region as a whole, and this issue requires further study.

A City Position

The City could draw from the "Urban Structure Concepts Study" certain values or principles upon which it feels transportation planning in the GTA should be based. Four such principles were identified earlier in this report, and are recommended for adoption:

- support intensification and a better balance of local housing and job opportunities;
- support greater transit use;
- support better transportation management; and
- support increased integration of transit services.

These principles are consistent with the emerging policy directions of the Cityplan '91 review which stress the need to put more housing in the City closer to the growing Downtown employment centre, continue to improve local and regional transit services for existing and future users, and limit the growth of auto travel to, and in, the Central Area. The City is in the fortunate position to have the development densities to support an excellent transit system, and can avoid the need to accommodate increasing levels of auto commuting. The "Urban Structure Concepts Study" primarily addresses the problems of low density suburban growth where the solutions are, perhaps, more difficult to find. From a transportation perspective, the key problem is how to control the future growth of auto use in suburban areas, but whatever the solution, the City should maintain its position that future increases in Central Area commuting must be handled by transit whether those coming from outside take transit all the way, or whether they have to transfer from their auto to transit at some point outside the City. Simply put, the City will continue to pursue policies that make it part of the solution, not part of the problem.

6

City's Response to the Greenlands Options Study

This study is quite useful in identifying environmentally significant areas across the Greater Toronto Area, in particular illustrating that unique habitats and topography extend across regional boundaries. It points to the need to strike a balance between urban growth and the natural environment.

Overall, the need for a greenlands strategy is well supported by the evidence presented in the document, and elements of the strategy show great potential. Specific recommendations of implementation strategy appear worthy of further consideration:

A declaration of Provincial Interest for the Oak Ridges Moraine Area

The declaration of Provincial Interest in the Oak Ridges Moraine Area is a significant move from the perspective of residents of that area. The Moraine serves an important ground water recharge (infiltration) and discharge (headwater) function, providing potable water for many communities. In this important capacity, a declaration would have little effect on Toronto residents, although the degree to which urban development is permitted on the Moraine will affect the flow rates of creeks and streams flowing through Metro. (For example, significant urban development could restrict the normal flow rate of the Don River headwaters and, by limiting the filtration effect, lead to higher rates of flow contributed by storm water run-off.) As a major plank of a broader greenlands strategy, the concept has merit; accessibility to greenlands for recreational purposes is important to inner city residents. There could be a major implication behind this declaration however. By bounding urban development on the north and east of the present urban area, future development will be pushed to the west. This could contribute to sprawl conditions unless strong interventionist implementation measures regarding overall urban form are put in place.

Provincial adoption of a GTA Greenlands policy statement pursuant to section (3) of the Planning Act which could lead to a restriction of land uses to those which do not reduce the attributes of greenlands.

Greater detail would have to be included in order to make the Policy Statement an effective one. Such detail would require the investment of substantial time and money if it is to be done effectively. Similar demands on time and finances would be required to complete any planning study designed to support the declaration of Provincial Interest. This study is directly linked to the "Urban Structure Concepts Study" at a general level. The link is not as apparent when considering how to implement a greenlands strategy in the context of each of the alternatives of urban form. A greenlands strategy is bound to run into conflicts with development activity. When conflicts arise, what mechanism can be put in place to ensure that they are dealt with in a consistent manner that respects the needs of both the regional and local municipality?

Examples to be considered include the use of municipal environment impact assessment as subject to review under the Planning Act, to ensure that all urban development and redevelopment is environmentally sensitive, or "green", and the use of regionally-based ecological and environmental advisory committees (as exist in areas such as Halton, Waterloo, and Niagara) to assist municipalities in assessing development impact, and in recommending mitigation and amelioration measures for development in, or adjacent to, natural areas and environmentally sensitive areas.

Recommending that the Planning Act be amended to prohibit site preparation activities such as the removal of trees and other vegetation, until such time as the necessary development approvals have been granted;

This is of particular interest to local municipalities which are trying to manage urban development through Official Plan and Zoning By-laws. Further legislative measures are required to protect trees and forests and to encourage the additional planting of trees in the urban setting. This recommendation is an important step. However, more effective incentives (penalties) could be introduced to protect existing trees and replace lost trees.

Encouraging all levels of government to investigate and promote intensification of urban development.

In all the redevelopment and intensification scenarios for existing urban areas, the provision of parks, recreation and community services must be included as part of the necessary infrastructure elements to be provided in conjunction with development.

Establishing a GTA greenlands acquisition program and a GTA Greenlands Foundation.
This would facilitate the preservation of natural areas and the concept of a Foundation to undertake fund raising for such an acquisition program would help to promote environmental initiatives.

Although the direct impact of the greenlands strategy on land use decisions within the City of Toronto is likely to be small, the questions of competing values and visions are as relevant to the City as they are to rural areas. Moreover, it is clear that the entire GTA will benefit from effective greenlands management.

7

Planning for the City and the Region

The "Urban Structure Concepts Study" was designed to foster informed public debate on the future urban form of the GTA. It is very difficult however to focus public debate on something as abstract as the future of a large urban area. The preceding sections of this report have attempted to evaluate the alternative patterns of population and employment distributions as described by the "Urban Structure Concepts Study".

Although the "Urban Structure Concepts Study" provides a good starting point toward fostering informed debate about the future of the GTA, there are some obvious limitations to the study imposed by the original terms of reference and the time available to complete it. By not examining the regional economy, or considering the influence of economic forces on population increase (by attracting new migrants) the study is missing an important dimension.[12] A wider range of alternative futures for the region needs to be looked at before future directions for the region can be firmly set.

The decision to consider only one possible future level of population, and the rate at which it is attained, means that this is not a comprehensive study of alternative futures for the GTA but basically one that focuses on the density and distribution of future development within a fixed projection of GTA population and employment growth. Decisions made regarding urban form (such as where and when investments in physical and social infrastructure are made) will help to determine the rate of population growth, and the ultimate level reached. With the impact of the Free Trade Agreement just beginning to be felt, along with other influences such as immigration policy, the possibility of Quebec sovereignty, the Federal Goods and Services Tax, and the oil crisis in the Middle East to name a few, the rate of population growth is by no means certain. Presumably, each alternative concept has intrinsic values which would determine whether the quality of urban life is improved or made worse for both existing residents and for those who might decide to come in the future. In fact, the study emphasizes that the main force driving future population growth will be migration from outside of the GTA and, to a large degree, from overseas.

By using only one population forecast, there is no basis for evaluating the impacts of the alternative concepts on the rate of overall growth and related aspects of the quality of urban life. These drawbacks also apply to the hybrid scenarios that the planners at Metro are introducing to the debate; they too are working with the same single population forecast, and not considering how the dynamics of the regional economy and the quality of urban services provided will influence in-migration patterns. Growth and form are not unrelated. However, it is difficult to demonstrate convincingly how the various concepts might influence the overall rate of growth in the GTA. It is possible, as the "Urban Structure Concepts Study" notes, that the implementation methods and the timing of government intervention may have more impact on land prices and, therefore, growth rates than would differences in the nature of these alternative urban concepts themselves.

Two of the original three concepts put forward by the IBI Group to the Office of the Greater Toronto Area do not appear supportable. The status quo option, Spread, goes against all current opinion regarding environmental primacy in the field of public policy. The second is the Central option. This represents the most concentrated or intensified form of development. To meet the objectives of this scenario there would have to be significant intervention on the part of the provincial government to restrict and redirect urban development; there would also be substantial negative impacts on existing communities within Metro and the adjacent municipalities as redevelopment densities would have to be very high. Intensification can only be pursued within reasonable limits; urban design and the impact on general living and working conditions must be considered.

Of the two hybrid options put forward by the Metro Planning Department, Fingers and Reinvestment Centres, only the latter appears to have merit. The concept of directing growth into urban fingers would appear to require enormous intervention if the interstitial greenlands are to be preserved. Considerable pressure would mount to develop these wedges, the finger-like development would be characterized by long-distance commuting trips to jobs within the present urban fabric, and over the very long run this option would probably lead to considerable spill-over effects outside of the present GTA boundary. It seems to be an intensification strategy that is doomed ultimately to fail.

The concept of nodal development seems to be generally favoured. It even receives positive mention in the Greenlands Strategy report. As the Metro Planning Department has pointed out, to disperse such nodes too widely across the GTA, especially if "new town" development models were followed, could create considerable pressure to develop the area between the nodes. This would be particularly so along the road and/or transit lines linking the nodes. Given the way in which the Greater Toronto Area has evolved, transit investments, in linking nodes, are prob-

ably best made within the more dense urban fabric of Metro Toronto in the short run. Intensification within the current urban fabric will also lead to more effective use of the existing trunk services and facilitate their upgrading.

What can the City of Toronto do to influence region-wide urban form? Recognizing the limitations of the "Urban Structure Concepts Study", it is difficult to choose one specific alternative as described. Any number of alternative scenarios of urban form could emerge throughout the consultation exercise. The most appropriate response from the City perspective seems to be to explore the type of regional form that would support, and be supported by, the principles and goals of Cityplan '91. Foremost among these are: protecting and improving the environment, improving the quality of life for City residents, particularly by addressing questions of social equity, and developing policies aimed at managing growth and promoting the concept of "stewardship" of natural and heritage resources. In general terms, those urban options based upon the intensification principle seem to offer the greatest potential, particularly some variation of nodal development where commercial and residential uses are concentrated in centres primarily within the presently built up urban area.

The following points summarize the City of Toronto position regarding planning for the Greater Toronto Area.

- The population growth projections prepared for the "Urban Structure Concepts Study" are not by any means a foregone conclusion. Declining fertility rates suggest that the population of Canada could begin to decline by the 2020s. Migration is the key to population growth, at all levels of geography. All three land use options (spread, concentrated and nodal) presented in the "Urban Structure Concepts Study" assume the same levels of regional population and employment by the year 2021 and the choice appears to be that of determining the preferred spatial arrangement and pattern of infrastructure investment associated with accommodating this predetermined level of future urban growth. This choice does not tell the whole story because urban form and urban growth are interdependent and one cannot be considered separate from the other, nor looked at independently of the implementation strategy to be used to achieve a given or preferred urban structure.
- It is not enough to simply build housing for the expected population. The quality of the residential environment and the health of the regional economy will determine the attractiveness of the Toronto region to new immigrants and to more mobile Canadians. A full range of community services must be put in place to foster the development of quality neighbourhoods. This would be most feasible where residential densities permit a variety of housing types to be built to satisfy the range of demands emerging from new arrivals. Also,

contrary to the assumptions of the "Urban Structure Concepts Study", it may be that the rate of job creation in the region is the driving force behind population growth and not the other way around. Immigration, population and employment growth assumptions are key to the future planning of the region.

- Economic development will also depend on the attractiveness of the Greater Toronto Area relative to other economic centres in Canada and the United States. Commercial development should be directed toward mixed use areas throughout the GTA, with a priority being the intensification of existing centres, the redevelopment of older industrial areas, and intensifying development in designated office parks and centres throughout Metropolitan Toronto. These areas are largely well served by transit and their development could improve the likelihood of enhancing transit service to, and linking, these areas. To ensure that these areas become true multi-functional nodes, minimum densities should be set for both commercial and residential development. Furthermore, to achieve a better balance between local job and housing opportunities, to reduce the need for long distance commuting, and promote transit use, there should be an explicit effort to link the planning of commercial uses with the planning of residential development.
- A transit future is desirable for the GTA. More intensified development, particularly in mixed use nodes, would facilitate the use of transit, reduce dependency on the automobile and hence contribute to environmental objectives around air quality and energy consumption. This goal would require improving transit services over their present levels, better management of the transit systems throughout the GTA and increased integration of transit services throughout the region. Rather than a single regional transportation authority, the concept of a "transit union" should be examined. Such a model of service integration would ensure that local transit authorities could still exercise some autonomy in the provision of local service. However, it remains to be seen how effectively and at what expense transit can be retrofitted to existing low density suburban areas.
- The success of nodes will depend on their design as well as their mix of uses and accessibility to a regional transit network. Urban design standards would help to ensure that such nodes have sufficient publicly accessible open space, permit adequate penetration of sunlight, and that a pedestrian environment is fostered to support local retail and service functions, to support transit usage and to ensure that all urban amenities are accessible to the disabled. Creating identifiable nodes with distinctive characteristics would make the GTA more attractive as both a place to work and live.[13]

- At the same time that policies and programs are set in place for intensification within the current urban fabric of the region, minimum residential densities should be put in place for those undeveloped areas that are expected to be developed in the near future (areas on the urban fringe already designated for urban uses in regional and local official plans).
- All of these objectives should be pursued within a planning framework which emphasizes environmental considerations as the driving force of urban policy. This is possible where the province sets broad parameters and guidelines for addressing the land use issues related to sprawl, broadly describing a preferred scenario for urban form and where the implementation responsibilities remain with the local municipalities. In this vein, much of the work of the Royal Commission on the Future of Toronto Waterfront should be endorsed and supported through local planning initiatives.
- In examining regional planning issues, the matter of financing cannot be treated as a totally separate issue. Given the significant infrastructure requirements of planning for growth, critical issues must be addressed, including the magnitude of expenditures, the distribution of costs, and the potential sources of revenue.

Urban sprawl is a problem in the Greater Toronto Area. The erosion of good farmland and accessible open space is a concern for all residents in the region. The City of Toronto does not appear to be part of the problem, given the densities of inner city neighbourhoods, the existence of employment nodes throughout the City and our pro-transit policies. However, the task of amending the City of Toronto Official Plan offers an opportunity for us to be a part of the solution to the various concerns identified in the "Urban Structure Concepts Study", the "Greenlands Options Study" and the Royal Commission interim report "Watershed". Cityplan '91 will be recommending ecologically sound policies to promote and protect the natural environment, minimizing pollution and energy consumption, and the stewardship of land resources. The new plan for the City will also focus on creating a better fit between employment and housing opportunities within mixed use districts of the City, such as the Central Area. It will also focus on aspects that make the City attractive to new arrivals (both population and business), such as quality neighbourhoods, accessible community services and transit services.

Achieving an urban structure for the Greater Toronto Area which addresses the concerns of the various Provincially sponsored studies probably means that the City of Toronto should expect to see more population and employment growth than presently anticipated. So long as the degree of intensification is not so intrusive as to resemble the basic concepts of the Central option (where the City's population approaches 1 million people), such growth could be accommodated. The proviso is that this growth should be consistent with the environmental and social equity

objectives that are at the core of City planning policy. In this respect, our interest in building communities, quality neighbourhoods and community services suggests that a 72 percent increase in population (the Central concept) would be extremely difficult to accommodate.

8

Conclusions

There are a number of initiatives which are helping to guide the planning for the future of the Greater Toronto Area. The Royal Commission on the Toronto Waterfront has released its second interim report. "Watershed" takes an ecological view of regional planning, defining the region as the watershed of streams flowing from the Niagara Escarpment and the Oak Ridges Moraine into Lake Ontario. The Office of the Greater Toronto Area is trying to foster debate about the long range future of the GTA with the publication of the "Urban Structure Concepts Study", and the Ministry of Natural Resources is co-ordinating responses to "Options for a Greater Toronto Area Greenlands Strategy".

The "Urban Structure Concepts Study" forecasts that the population of the Greater Toronto Area will grow by 60 percent to 6.02 million people by 2021. If present trends continue, almost all of this increase is expected to be experienced outside of Metropolitan Toronto. The housing and workplace requirements of this population dictate that substantial farmland and open space will have to be developed to urban uses, likely at very low densities. The "Urban Structure Concepts Study" is a comparative analysis of three scenarios of population distribution. The implications for financing urban services, transportation, human services and the erosion of greenspace for urban purposes are compared for three different scenarios of urban form. The Office of the Greater Toronto Area is looking for reactions from municipal and regional governments across the GTA to this study.

The "Urban Structure Concepts Study" looks at a status quo pattern of urbanization (Spread) and a centralized intensification model of growth (Central). Both of these models are presented in such terms as to rule them out as preferred options. The Spread option goes against all emerging public opinion regarding environmental primacy in the field of public policy. To meet the objectives of the Central scenario there would have to be significant intervention on the part of the Provincial Government to restrict and redirect urban development. Even if this were reasonable from the Provincial perspective, intruding on local planning powers and the impacts that increased densities would have on the existing urban communities would generate opposition.

An alternative intensification option, Nodal, provides the third option which appears to be favoured by the authors of the "Urban Structure Concepts Study" as well as by others such as the Metropolitan Toronto Planning Department. The Nodal option, or variations of it, require that much of the population growth should be accommodated in moderate density mixed use nodes which would be linked by rapid transit lines. Many of these nodes would be within the presently built up urban area, but others could be centred on small rural communities, or be new town sites developed from scratch. This concept is not well defined and the nodes are only indicated in a conceptual way on a map. Little thought has gone into more fully describing a preferred urban structure. As the Metro Toronto Planning Department has pointed out, the pressure to urbanize the greenfields between the outlying nodes would be considerable, and it may just be a matter of time before sprawl surrounds each node. With this in mind, Metro is taking the position that such mixed use nodes are appropriate, but that the priority should be on developing them within the current urban fabric, including the redevelopment of older industrial areas within Metro Toronto.

The objective of regional planning should be more than trying to draw a picture of the urban form at some arbitrary point of time in the future. The objective should be to put in place policies and implementation measures which serve societal values rather than individual values. Attempts by the Province, and to some degree by Metro Toronto, to plan for a region encompassing numerous political units have failed in the past largely because of the difficulties of developing local area plans that adequately reflect broader regional concerns and the lack of appropriate implementation measures to protect the regional interest.

This report has examined the "Urban Structure Concepts Study" in particular, as well as the options put forward for the development of a Greenlands Strategy for the Greater Toronto Area. Managing growth through land use decisions is the responsibility of local municipalities and regional governments, but the stewardship of threatened resources transcends local authority. There is a role to be played by the Province in directing the future development of the Greater Toronto Area; however, discussion of a planning process for the GTA which ensures a degree of local autonomy has yet to surface.

There are a number of limitations to the "Urban Structure Concepts Study", the most notable being the decision to only examine one possible scenario of population growth, which suggests that urban growth is independent of urban form and that continuing rapid growth is inevitable for the next 30 years. The release of two related reports, the "Options for a Greater Toronto Area Greenlands Strategy" and the interim report of the Royal Commission on the Future of the Toronto Waterfront, help to place in perspective the underlying principles behind regional planning in

the 1990s. Regional planning has had a chequered career at best in Ontario. The multiplicity of players, both within the Provincial bureaucracy and among the many local and regional municipalities, makes it very difficult to articulate societal interests in a way which is supportable by local planning efforts. The focus of regional planning today would seem to be on the preservation of threatened natural resources, the quality of urban life, the sustainability of economic activity, and the equity of access to economic and social opportunities; all are important to the health and vitality of the Greater Toronto Area.

By looking at where regional and city planning objectives could be mutually supportive, conclusions have been drawn regarding a desirable urban form for the Greater Toronto Area from a City perspective. This form is one of intensification in mixed use nodes of moderate density. These nodes should be linked by transit lines. The policy of nodal development should set as a priority the redevelopment of underutilized lands within the current urban envelope and "intensification" should be adopted as a common planning principle throughout the region. Intensification should also be seen as more than simply increasing development densities within defined urban centres and include, as well, a definite policy of promoting a better match or balance between local job and housing opportunities within these centres. Also, for intensification to become a successful strategy, it must be pursued in the context of building high quality, compact, environmentally friendly communities. The success of any regional planning initiative will depend to some extent on the degree to which it can emphasize community building as a starting point for implementing the principle of intensification.

All of the reasons for the failure of regional planning initiatives in the past, identified by Frances Frisken (see Section 3), are still present in the inter-relationships of cities, regions and the Province and among Provincial authorities. Before work can begin toward defining a preferred urban structure such institutional inertia must be overcome; implementation strategies must be explored at an early stage in order to accomplish this.

9

Recommendations

(as adopted by Council on December 10, 1990)

1. That Council support the recent initiative of the Greater Toronto Co-ordinating Committee (GTCC) to stimulate the debate regarding the preferred pattern of future growth in the GTA and accept the "Urban Structure Concepts Study" as a starting point for further regional planning activities and decisions, and request the Province to continue its planning process on a joint, co-operative basis involving all levels of government within the region.

2. That Council express an interest in participating in a regional planning exercise which emphasizes the importance of regional environmental concerns and that, on this basis, Council indicate its preference for planning the future urban structure of the region on the principle of "intensification".

3. That City Council:
   (a) endorse the policy directions emerging from the current Cityplan '91 initiative which support intensifying development in the Central Area to promote a better balance between local employment and housing opportunities, while creating livable communities with a high quality of life;
   (b) recognize the desirability of planning for an overall population level of at least 725,000 for the City of Toronto by the year 2011; and
   (c) recognize and reinforce the unique role of the Central Area office market, particularly in the financial services sector, but at the same time endorse the trend of locating an ever increasing proportion of the region's office market outside the Central Area.

4. That Council, in support of the principle of intensification, endorse the following four guidelines for transportation planning in the GTA:
   (a) encourage land use patterns which assist transportation efficiency by establishing minimum residential and commercial development densities in newly developing suburban areas, and by providing for a better

balance of local jobs and housing opportunities in defined development nodes;
(b) support measures to encourage greater transit use throughout the region;
(c) support better transportation management; and
(d) support increased integration of transit services across the region, including the possibility of establishing a regional 'transit union' to provide this coordinating function.

5. That Council endorse the findings of the report, "Options For A Greater Toronto Area Greenlands Strategy", and more specifically the recommendations for:
(a) establishing a regional greenlands system;
(b) preparing regional guidelines addressing urban drainage/storm water management and water conservation;
(c) preparing a Greater Toronto Area Greenlands policy statement pursuant to Section (3) of The Planning Act;
(d) declaring a general expression of provincial interest for the Oak Ridges Moraine Area, under Section (2) of The Planning Act;
(e) amending The Planning Act such that site preparation (e.g., removal of vegetation, stockpiling of top soil, etc.) cannot occur until necessary development approvals have been obtained;
(f) encouraging all levels of government to investigate and promote more intensive forms of urban development;
(g) establishing a GTA greenlands acquisition program and a GTA Greenlands Foundation; and
(h) examining statutory requirements to ensure that specific community benefits, including adequate parks and recreation facilities, protecting significant natural resources, and using appropriate measures to protect the environment, are considered together with development.

6. That City Council indicate its concern over the present trend towards further suburban sprawl and request the Province to consider adopting minimum residential densities in those areas on the urban fringe that are anticipated to be developed in the near future, and adopting measures to limit the development of office space in non-nodal, dispersed locations.

7. That the Office of the Greater Toronto Area be requested to include the following as next steps toward the development of a plan for the GTA:
(a) an urban design exercise to establish minimum densities, both residential and non-residential, for mixed use nodes;
(b) further study of improved transit access to the international airport and the surrounding employment area;

(c) realistically examining locations for potential mixed use nodes;
(d) investigating and mapping the pattern of ownership of greenfield lands on the outskirts of the present built-up urban area to determine the extent to which the options for urban containment are already foregone;
(e) examining the use of existing rail corridors for rapid transit purposes;
(f) undertaking a more detailed assessment of the future of the automobile in the region, including the social and environmental consequences of a continued auto-dependent pattern of suburban growth;
(g) conducting a comprehensive financial impact analysis of various growth options; and
(h) developing a comprehensive housing needs assessment for the Greater Toronto Area and a fair share allocation procedure to ensure low and moderate income households throughout the GTA have equal access to affordable housing opportunities.

8. That following approval of this report by City Council, the City Clerk be requested to distribute copies of this report to all regional and local municipal governments within the GTA area and the appropriate Provincial agencies, including the Ministries of Municipal Affairs, Environment, Natural Resources, and the Office for the Greater Toronto Area.

10

End Notes

1. *Goals and Principles for a New Official Plan*, Cityplan '91 Citizens' Task Force.
2. Nowlan, David, "Commercial Growth and the New Toronto Plan", in *Proceedings from the Forum on the Future of the City of Toronto*, May 27-31, 1989.
3. See Cityplan '91 Background Paper #7: *The Central Area in Transition: Findings of the Central Area Residents' Survey*, 1989.
4. Frisken, Frances, *Planning and Servicing The Greater Toronto Area: The Interplay of Provincial and Municipal Interests*, York University, Toronto, 1990, p.62.
5. The IBI Group, p.6, *Greater Toronto Area Urban Structure Concepts Study: Background Report #1.*
6. Options for a Greater Toronto Area Greenlands Strategy, 1990, p.1.
7. Spurr, Peter, *Land and Urban Development*, Lorimer, 1976, also Newman, Oscar, *Community of Interest*, Doubleday, New York, 1980.
8. Jodoin, Michele, "Montreal's Approach to Traffic Congestion" in *Proceedings from the Forum on the Future of The City of Toronto*, May 27-31, 1989, p.207.
9. "Greater Toronto Area Urban Structure Concepts Study: Background Report #1", The IBI Group, p.20.
10. Nowlan, David, "Commercial Growth and the New Toronto Plan" in *Proceedings from the Forum on the Future of the City of Toronto*, May 27-31, 1989.
11. *The GTA: Concepts for the Future*, Metropolitan Toronto Planning Department.
12. Gertler, Meric, University of Toronto, speaking at a panel discussion: "The Greater Toronto Area 1990-2021: Some Strategic Issues", October 3, 1990.
13. The question of what contributes to the success of "suburban downtowns" has been the focus of research by Malcolm Matthew. See "Decentralization of Toronto's Office Space: A Suburban Perspective" in *CityPlanning Magazine*, Fall, 1986.

Appendix

The following is a list of the participants at the roundtable discussion of Regional Issues held on Wednesday, March 28, 1990 at the Toronto Board of Trade.

Larry Bourne
Department of Geography
University of Toronto

Sylvia Davis
Vice Chair
Greater Toronto Co-ordinating Committee

Steve Dynes
Research and Information Section
City of Toronto Planning and Development Department

Francis Frisken
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Gunter Gad
Department of Geography
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Ken Greenberg
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Neal Irwin
IBI Group/BIA
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Diana Jardine
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Barbara Leonhardt
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Bob Millward
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Michael Miloff
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Central Core and Waterfront Division
City of Toronto Planning and Development Department

Juri Pill
Administration and Planning
Toronto Transit Commission

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Peter Tomlinson
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Kenneth Whitwell
IBI Group
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